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THE WILSON BULLETIN

AN ILLUSTRATED QUARTERLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS IN THE FIELD

Edited by **LYNDS JONES**

OFFICIAL ORGAN OF THE WILSON ORNITHOLOGICAL CHAPTER OF THE AGASSIZ ASSOCIATION

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GENERAL NOTES.

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SOME REMARKS ON THE "BIRDS OF CHESTER CO., PA."

By Frank L. Burns, *Berwyn, Pa.*

During the latter part of 1889,* the *Ornithologist and Oologist* published what appeared at first to be a reliable and admirably annotated list of the "Birds of Chester County, Pennsylvania." This, the fifth and last list devoted exclusively to the County, was subsequently found to contain so many remarkable statements, particularly regarding the breeding of species long known to nest only in the far north or at a much higher altitude than our county anywhere affords, that it was cast aside as utterly untrustworthy. The author, Mr. Cyrus B. Ressel, quoted Mr. William D. Doan, of Coatesville, as his authority for so many statements, that I was constrained to write to that gentleman, in order to separate some of the wheat from the chaff, if possible. As Mr. Doan has long since retired from the Ornithological field for the scarcely less interesting study of Entomology, I take it upon myself to publish the following notes and corrections, taken from his letters almost verbatim, trusting that they may not be without some value. In justice to Mr. Doan I will say that he had not seen the *O. & O.* list until I drew his attention to it.

"Horned Grebe, *Colymbus auritus*.—One specimen secured on the Brandywine creek south of Mortonville.

"Blue-winged Teal, *Anas discors*.—I shot two or three specimens on the same creek in the fall. (I secured several during the first week in September, about the heads of Gunpowder and Bush rivers, Maryland.)

"Whistling Swan, *Olor columbianus*.—I remember taking one out of five, the last week in March, 1885, along the meadows south of Chadd's Ford, during a severe rain storm which lasted for several days. These birds often ascend tributaries to quite a distance. My brother has mounted specimens, shot during spring-time, north of Columbia, Lancaster county, on the Susquehanna; and I have also shot them as far inland as Harper's Ferry, West Virginia, on the Potomac.

"Yellow-legs, *Totanus flavipes*.—I secured one along the Brandywine creek, south of Downingtown. I believe it was in the spring of 1887, but I am not sure as to the year.

"Passenger Pigeon, *Ectopistes migratorius*.—I had secured half-a-

*July, August and September. See Vol. xiv, pp. 158 and 175 for criticisms.—[Ed.

dozen specimens of this species in Chester and Lancaster counties previous to 1882, but have not seen any since that time.

"OLIVE-SIDED FLYCATCHER, *Contopus borealis.*—In looking over my Entomological notes I find in reference to this species: Sept. 30, '87, secured two males near Coatesville along the Brandywine road, feeding upon Red Ants, *Formica sanguinea.* Upon examination of the stomachs, I found them to contain besides the Red Ants: Black Crickets, *Acheta nigra;* Mosquitoes, *Culex pipiens* and two House Flies, *Musca domestica.*

"YELLOW-BELLIED FLYCATCHER, *Empidonax flaviventris.*—I remember collecting this bird upon one occasion during the breeding season, and have no doubt that it would be more frequently met with but for its resemblance to *C. virens* at a distance.

"AMERICAN CROSSBILL, *Loxia curvirostra minor.*—Several secured during the great blizzard of March, 1888. Dr. A. K. Fisher took them during this storm, as far south as Washington, D. C.

"WHITE-WINGED CROSSBILL, *L. leucoptera.*—One taken during the same storm.

"BOHEMIAN WAXWING, *Ampelis garrulus.*—I shot two specimens during the same blizzard. Climatic conditions have so much to do with bird life that in order to be posted upon each species, one must have the necessary field experience. If we fail to look for northern species during the cold and stormy days we will never secure them.

"PARULA WARBLER, *Compsothlypis americana.*—In 1883 I found this bird breeding along the Octoraro creek which borders the county. Turning to such high authority as Mr. H. Nehrling and Prof. Ridgway, we find them saying: 'From Maine and Canada to Texas it seems to make itself at home where ever it can find a nesting place;' and further 'It ranges from the Atlantic to the Plains, north to Canada. In Conneticut, Wisconsin, Illinois, Pennsylvania, Michigan New Jersey and most of the states bordering on the Atlantic it seems to be common.'

"CAPE MAY WARBLER, *Dendroica tigrina.*—Mr. Wood, of Philadelphia, took this species near Coatesville. This specimen is now owned by Mr. Thomas Windle, of the firm of Windle and Doan, Coatesville.

"BLACKBURNIAN WARBLER, *D. blackburniæ.*—I have met with this species in the county as a transient visitant only, but met with a single pair in Lancaster county, north of Columbia, along the Susquehanna, late in June, paired and the male in full song.

"PINE WARBLER, *D. vigorsii.*—I have met with it on two occasions, once in the spruces south of Coatesville, and the second time in what is

known as Roney's Pines, south of Steelesville, along the Octoraro creek. They have been taken upon several occasions at the last named place by the late Joseph Krider, of Philadelphia. It breeds in all our Atlantic states, at least as far south as South Carolina. It is a summer resident in eastern West Virginia and as far north as Manitoba. Nehrling says, 'It seems to be especially abundant in the pine barrens of the South Atlantic and Middle States.' This species frequents the pines and spruces throughout its range and must be looked for in such places.

"PRAIRIE WARBLER, *D. discolor*.—I found it breeding in the county, south of Medina, along the Brandywine, but once. I have frequently met with it during my several years' collecting, in the rocky localities along the Brandywine and Octoraro creeks. It can be found throughout the summer along the Susquehanna river as far north as Peach Bottom and it may be further north of that point, as it has been found in Southern Wisconsin, Michigan and New England. It is one of the smallest and most active of the *Dendroica* group.

"WATER THRUSH, *Seiurus noveboracensis*.—Met with in this section only as a transient visitant.

"LOUISIANA WATER THRUSH, *S. motacilla*.—I secured nest and eggs south of Atglen, along the Octoraro in the summer of 1883. I saw the birds building their nest and secured both male and female after the eggs were laid. They are very shy, often nesting where it is hard to get to them for mud or water. I regard the finding of the Worm-eating Warbler easy in comparison.

"HOODED WARBLER, *Sylvania mitrata*.—If my memory serves me right, my friend, the late Joseph Krider, collected specimens south of Steelesville, along the Octoraro, and wrote me in regard to the find shortly afterward. I have shot it in Mayland close to the Pennsylvania line.

"I have never met with the American Egret, *Ardea egretta* and Florida Gallinule, *Gallinula galeata*, in the county, but I shot one of each in the adjoining county of Lancaster, near Peach Bottom.

"I have met with the American Bittern, *B. lentiginosus;* Red-shouldered Hawk, *B. lineatus;* Least Flycatcher, *E. minimus;* Rose-breasted Grosbeak, *H. ludoviciana*, and Wilson's Thrush, *T. fuscescens*, only as migrants.

"I have not observed the Fish Crow, *C. ossifragus*, in the county, and to the best of my knowledge I have not seen the Golden Eagle, *A. chrysaetos;* American Hawk Owl, *S. ulula caparoch*, or Red-shafted Flicker, *C. cafer*, in this state."

We must regard the capture of one or two belated individuals of the Yellow-bellied Flycatcher in Chester and Blackburnian Warbler in Lancaster counties, in the breeding season, as purely accidental and of no value in determining their breeding range.

A few species, undoubtedly migrants, given by Mr. Ressel as summer residents (to which exceptions were made), subsequently have been found nesting in the county; while others were undoubtedly the result of careless "identification" or misinformation.

It is to be hoped that, ere long, a competent person of large field experience in local ornithology will give us a list revised and corrected to date.

GENERAL NOTES.

YOUNG OF THE KILLDEER, *Ægialitis vocifera*.—May 15, 1896. While out walking early this morning I had the pleasure of seeing, for the first time in my life, some nestling Killdeers. Seeing a pair of old birds near the corner of the pasture which I was crossing, I stepped over that way and at once felt sure there were eggs or young, as the old birds at once set up a fearful and pitiful crying, "*Kill-dee–Kill-dee*," and would flutter and crawl along in front of me after the "time honored custom" of ground nesting birds. I soon found the young, three in number, little downy bits about as large as ones thumb, but able to walk quite well. On picking one up (much to the discomfiture of Mrs. Ægialitis) he "*peeped, peeped*," much like a young chicken, for a few minutes and then nestled down in my hand, perfectly contented. When resting on the ground the head and bill are laid perfectly flat, with the body, upon the ground. When I left the spot, one of the parents followed me, circling and calling, to the outskirts of town, nearly a half mile, probably thinking that I still held one of his offspring in captivity.

N. HOLLISTER, *Delavan, Wis.*

SOUTHERN WISCONSIN NOTES.—DICKCISSEL, *Spiza americana*.—A pair of Dickcissels, the first seen in several years, summered near Delavan last year; the male could be seen on any day during the latter half of May and all through June, sitting upon a fence post by the road-side, evidently not far from the nest.

BALD EAGLE, *Haliœetus leucocephalus*.—More common this fall than for several years—several fine adults seen and also several immatures—

one of the latter having been shot at Delavan Lake, extent seven feet two inches, weight nine pounds.

Passenger Pigeon, *Ectopistes migratorius.*—A fine single Passenger Pigeon shot on September 8, 1896.

Am. Osprey, *Pandion haliaetus carolinensis.*—Several Ospreys, quite a rare bird here, seen during the fall and summer—one in July and the remainder in September.

Snowy Owl, *Nyctea nyctea.*—One Snowy Owl, so far this winter, seen on December 11.

Redpolls, *Acanthis linaria.*—Have appeared here this winter for the first time to my knowledge. The first were seen on November 24 and I thought them to be Goldfinches from their long drawn-out "*me-e-e-e-e-*," but on catching a glimpse of one, I at once recognized it as *Acanthis linaria.* They have since become very abundant and are still here (January 12), but I have so far searched in vain for a red male. Their flight is exactly like that of the Goldfinch and they call repeatedly while on the wing. When very close to a party of them in the bushes, one can hear a repeated "*chip-chip-chip-chip,*" with a rising and falling inflection, as if in conversation. This and the call are the only notes I have heard. N. Hollister, *Delavan, Wis.*

A New Mexican Bird.—Western Nighthawk, *Chordeiles virginianus henryi.*—This bird is quite common in New Mexico, replacing the common Nighthawk. The cry and flight are the same, but the birds appear to sleep oftener on the ground. I have often started them up when out walking, long after the end of the breeding season. When flushed from their nests they would circle around once or twice and then alight within a few yards and wait anxiously until I walked away. The eggs were laid on the bare ground without even a sign of a depression to keep them from rolling away. How the birds ever found them after once leaving them is a wonder to me, as the places all looked alike and the eggs resembled the soil so in appearance that it was hard to distinguish them, even when they were pointed out. These birds did not seem to gather together as much as does our common eastern form while flying.

Sydney S. Wilson, *St. Joseph, Mo.*

Mr. Wilson also sends a clipping from a local paper which gives an account of a ferocious attack by a Bald Eagle upon a horse. The horse had been ridden into a field, and tied to a tree while its owner was hunting. Soon the eagle appeared and pounced upon the horse, which was unable to break away and free itself from its tormentor. "Holzhauser

ran to the assistance of the horse, and using his gun as a club, he knocked the eagle to the ground. It started to attack the man, but he fought it off, and finally the bird rose to the limb of a tree near by. From this point the hunter brot the eagle to the ground by a well directed shot." Mr Wilson saw the horse and vouches for the story. He says that the bird measured eight feet from tip to tip of wings.— EDITOR.

AMERICAN GOLDFINCH, *Spinus tristis*.—At Overbrook, Pa., on the morning of Jan. 8, a male of this species was seen sitting on a fence. He flew away at my approach, and uttered the ordinary note. This is the first time I have seen this bird in winter, although it is common in summer.

RUSSELL GRAY, *Philadelphia, Pa.*

WESTERN SEMI-PALMATED SANDPIPER, *Ereunetes occidentalis*, IN N. J.—In looking over my series of less than a dozen skins of the Semi-palmated Sandpiper recently, I discovered an unquestionable specimen of the *Ereunetes occidentalis*. It was a female taken August 31st, '91, with several *E. pusillus*, from the meadows near Atlantic City, New Jersey. Stone, in his *Birds of New Jersey and Eastern Pennsylvania* gives it as a straggler, and Chapman, in *Birds of Eastern North America* as occasional on the Atlantic coast. Bailey (*Auk*, Vol. XII. p. 174) found it more abundant than the Semi-palmated in Cape May county, N. J., during the first two weeks in September, 1895, and his concluding remark "that it may not be as accidental as heretofore supposed" is apparently well founded. Eastern collectors would do well to scan their specimens labelled *E. pusillus* with care and record every occurance of the western species on the Atlantic coast, so that it may be possible to determine whether the extension of its range is of common occurrence within recent years.

FRANK L. BURNS, *Berwyn, Pa.*

UNUSUAL ACTIONS OF SPARROWS.—Of the many who have interested themselves in the general traits and habits of any group of the higher classes of wild animals, there are few who have not found some peculiarity or individuality, transmitted or acquired, in an isolated example of some species or other. It is impossible to detect such so-called eccentricities unless the observer be familiar with the regular habits of the species, and even then it may prove to be the rule under different surroundings, when it is the exception in the locality in which the observations were made. I will relate two instances of marked departure from

the normal traits, neither of which have I seen duplicated in the eight years succeeding. Both the enactors belong to the Sparrow family. The first may be easily explained on the score of heredity ; the second is not so easy, as the motive is not so evident, possibly owing to my lack of personal knowledge of the habits of the bird in its summer home.

On June 22, '88, I discovered an undersized nest of the Chipping Sparrow, six feet above the ground on a dead and exposed branch of a peach tree. The bird sitting on two small young, almost let me put my hand on her before she cast herself off and down upon the ground, there fluttering along in exactly the manner of a Vesper Sparrow when flushed from her young. She soon came back and rested on a branch quite near me. Some of our tree-nesting Thrushes will sometimes go through similar antics upon being startled from their nests, especially when they have newly hatched young. Does not this point toward strictly terrestial proclivities of the parent stock ? In all the cases I can recall, where the various species of a family nest indifferently on the ground or above it, the latter is unquestionably the advancement, either from the increase and variety of sites or the superior cunning and craft requisite to construct it.

The second incident occurred on October 4th of the same year. A White-throated Sparrow, skulking close up to a row of bean stalks, came out almost under my feet and ran for some distance in advance of me before flushing to a bush where it sat scolding me in so earnest a manner that I instinctively began search for its nest, which of course was not found. I repassed the same spot three or four times during the course of the afternoon and presumably the same bird repeated this performance every time. I cannot reconcile its presence and actions at this particular spot to a desire for either food or shelter.

FRANK L. BURNS, *Berwyn, Pa.*

NOTES FROM CINCINNATUS, N. Y. PILEATED WOODPECKER, *Ceophloeus pileatus*. On September 30, a fine female Pileated Woodpecker was brought me, and on October 26 I secured a male bird. Ten years ago this bird was almost unknown in this section but is now a fairly common resident, known to breed here. I know of at least a dozen being killed in this vicinity in the last three years.

AMERICAN GOSHAWK, *Accipter atricapillus*.—October 24, a female American Goshawk was brought me. As far as I am aware this is the first record of the occurrence of this species in this immediate vicinity. The bird was killed in Chenango county about two miles from the Cortland county line.

Within the past half dozen years a Turkey Vulture (*Cathartes aura*) and a Barn Owl (*Strix pratincola*) have been taken just in the edge of the same county.

H. C. Higgins, *Cincinnatus, N. Y.*

Notes from La Crescent, Minn., September, October and November, 1896.—Caspian Tern, *Sterna tschegrava.*—Saw eight flying south on the 14th and twenty on the 15th of Sept. The last flock stayed on a sand-bar in the Mississippi for about half an hour.

Great Blue Heron, *Ardea herodias.*—More than the usual number seen this month; mostly young birds. A few still present in the river bottoms in October.

American Osprey, *Pandion haliaetus carolinensis.*—A good many seen in the southern part of this county along the Mississippi.

Myrtle Warbler, *Dendroica coronata.*—Not so many this fall as last. Saw the most on Sept. 22nd.

Tree Sparrow, *Spizella monticola.*—Seen everywhere during October, and until Nov. 15. Very few Nov. 30.

Bluebird, *Sialia sialis.* Only one bird seen in Sept.

Junco, *Junco hiemalis.*—Seen everywhere during October, and until Nov. 15. Very few Nov. 30.

Fox Sparrow, *Passerella iliaca.*—Commenced to arrive from the north about Sept. 28th. Present everywhere in our bottoms during October.

White-throated Sparrow, *Zonotrichia albicollis.*—Few seen with the Fox Sparrow. Present during October.

Ruby-throated Hummingbird, *Trochilus colubris.*—One seen on Sept. 29th. Not as many seen the past season as usual.

American Crow, *Corvus americanus.*—More seen than usual in Sept. Seem to be increasing in this locality.

Double-crested Cormorant, *Phalacrocorax dilopus.*—Quite a number were noticed going south about the 15th of October.

Ring-billed Gull, *Larus delawarensis.* Some flocks have been seen along the river as late as Nov. 8th, going south.

Loon, *Urinator imber.*—Only two have been noticed in October. Last on Nov. 8.

Am. Coot, *Fulica americana.*—Last on Nov. 12.

Canada Goose, *Branta canadeasis.*—A few flocks seen flying south in October; the last Nov. 8th.

Mallard, *Anas boschras.*—Last on Nov. 19th.

Ruby- and Golden-crowned Kinglets, *Regulus calendula and satrapa.*—Are seen and heard in the woods. Seem to be about the same number as last season.

Rusty Blackbird, *Scolecophagus ferrugineus.*—Were seen in small flocks during October. Last Nov. 12.

Red-winged Blackbird, *Agelaius phoniceus.*—Were with us in large flocks during October.

Bronzed Grackle, *Quiscalus quiscula aeneus.*—Present in large flocks during October.

Whit Harrison, *La Crescent, Minn.*

Where the Juncos Roost.—In a hilly piece of woodland near here the banks in many places are so steep that the earth slides down, leaving an overhanging fringe of roots and rootlets, covered above with mould and fallen leaves—a continuation of the surface soil of the hill-tops. Within these cave-like places the Juncos roost in considerable numbers, probably all within reasonable distances of the banks, and apparently occupy them all winter.

J. C. Galloway, *Montgomery, O.*

The American Long-eared Owl in Confinement Drinks Water.—An American Long-eared Owl was taken on May 25th last, together with four others, from an old crow's nest in a deep tamarack swamp in Jackson county. They were apparently about two weeks old and yet in the down. The individual in question was kept alive and christened "Socrates", while his four less fortunate brothers and sisters with the parent bird were made ready for the skin shelves. Now I had kept Great Horned Owls, and Screech Owls for over two years at a time and never had I known one to drink water nor had they an opportunity to do so if they wished. Socrates was kept for about six months in our cellar and well fed with mice, sparrows and red squirrels, bits of meat, etc., and he thrived and grew. One day a dish of water chanced in his presence and he placed himself in the three inches of water, drank very heartily, taking long gulps and then raising the head and swallowing as do the ordinary fowls. Since then he has been regularly provided with water, and he seems to want it as would a canary or goldfinch. He is now in a spacious cage, a hearty undisputed example of a survivor of total abstinence of water (not fire water, but aqua pura, H_2O). Let the camel "look to his laurels." Query, do owls and hawks at large and in confinement usually drink and do they need to do so?

L. Whitney Watkins, *Manchester, Mich.*

Mr. Benjamin T. Gault, Glen Ellyn, Ill., writes: "I saw two Meadowlarks here on the 10th of January, and a large flock of Canada Geese on the 15th. Unusual winter visitors here.

EDITORIAL.

The year just closed has been the most prosperous one in the history of the Chapter, both financially and intellectually. Increased interest in the study of the birds has resulted in a larger paid up membership than for any previous year. There has been a marked tendency toward inquiry into the inner life of birds, an intelligent effort to search out the cause of any action while seeking a closer acquaintance with each bird. An accurate record of the migrations, the song, the food, the nesting, the eggs and the many other characteristics which we are wont to notice, will always be useful, but we need to look beyond these external things into the life of the bird and determine, if we can, why these things are so. We are just beginning to learn that the real problems of bird life are more than skin deep. The old grind that a 'bird in the hand is worth two in the bush' may still apply to other things, but it certainly does not apply to the birds. We want to know *them*, not simply their skins. May the coming year see still greater advance in this good work.

An invitation has been received to attend the January meeting of the Cooper Ornithological Club at the residence of our fellow member, Mr. Chester Barlow, 529 South Fourth street, San Jose, Calif., which met on January 9. Among the papers presented is one on the "Habits of the Red-bellied Hawk" by another fellow member, Mr. Henry Ward Carriger. This live club is doing good work.

PUBLICATIONS RECEIVED.

The Oologist, Vol. IX. No. 1. Frank H. Lattin, Albion, N. Y.

Bulletin of the U. S. National Museum No. 49. A Bibliography of the Published Writings of Philip Lutley Sclater, by G. Brown Goode.

The Iowa Orinthologist. Vol. II. No. 4., Oct. 1896. David L. Savage, Salem, Ia.

The Fern Bulletin, Vol. V. No. 1., Jan. 1897. W. N. Clute, Binghamton, N. Y.

The Museum, Vol. II. No. 12, Vol. III. Nos. 1, 2, and 3, Oct., Nov., and Dec., 1896, Jan. 1897. W. F. Webb, Albion, N. Y.

The Nidiologist, Vol. IV. Nos. 2, 3, 4, and 5, Oct., Nov., Dec., 1896, Jan., 1897. H. R. Taylor, Alameda, Calif.

The Osprey, Vol. I. Nos. 4 and 5, Dec., 1896, Jan., 1897. W. A. Johnson, Galesburg, Ill.

The Observer, Vol. VII. Nos. 11 and 12, Nov. and Dec. 1896. E. F. Bigelow, Portland, Conn. We are pleased to see this popular magazine again in the field, and wish it a long and useful career.

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WANTED! Clean, unbound back numbers of the *Auk*, and *Ornithologist and Oologist*. Will pay good cash prices for the right numbers.—Henry R. Buck, *Wethersfield, Conn.*

THE NIDOLOGIST

Founded September, 1893.

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BULLETIN No. 13.

Old Series, Vol. IX. New Series, Vol. IV, No. 2.

The Wilson Ornithological Chapter of the Agassiz Association.

GENERAL NOTES.

Issued Bi-Monthly as the Official Organ of the Chapter.

EDITED BY LYNDS JONES.

Subscription 50 cents a Year.

OBERLIN, OHIO.
March 30, 1897.

MAJOR CHARLES E. BENDIRE.

MAJOR CHARLES E. BENDIRE.

The Wilson Orinthological Chapter mourns the loss of Major Charles E. Bendire, an Honory member, who died at Jacksonville, Florida, February 4th, 1897, of Bright's disease. He had removed to Florida in the hope that the genial climate might stay the progress of the disease, but he died only five days after leaving Washington.

Major Bendire was born in Hesse Darmstadt, Germany, April 27, 1836, came to this country in 1852, and in 1854 enlisted as a private in Company D of the 1st Dragoons, United States Army. After serving for many years with distinction and rising to the rank of Captain, he was retired iu 1886 on account of an injury to his knee. In 1890 he again took the field and was brevetted Major for gallant services in fighting the Indians at Canon Creek, Montana, on September 13, 1877. He combined the characteristics of fearlessness with sound sense, always dealing out justice to wrong doers, and always respecting the rights of both Indians and Whites. He was both respected and feared by the Indians, who knew they could expect only justice from the White Chief. He never treated them unjustly.

Of Major Bendire's contributions to science, it is enough to mention his two unequalled volumes of "Life Histories of North American Birds." Never since Audubon, Wilson and Nuttall has any such comprehensive work been attempted, and Major Bendire's extensive field experience and intimate association with nature eminently fitted him to undertake so great a task. It is not too much to say that these two volumes have never been equalled in completeness and accuracy of treatment of the habits of the species discussed. Our loss is the more keenly felt when we realize that we cannot now look forward to the succeeding volumes which he had planned and hoped to finish. These volumes and the collections of the eggs of North American birds in the United States National Museum, of which he was the Honorary Curator, and of which his personal collection donated to the Museum formed so large a part, will forever stand as monuments to his untiring devotion to the cause of science.

The excellent portrait of Major Bendire, which appears as frontispiece in this issue, is by the kindness of Mr. Walter A. Johnson, editor of *The Osprey*, Galesburg, Illinois. It was made about 1884.

THE BIRDS AT HOME.

I have been surprised at the tameness of wild birds here in our woods. Perhaps you do not know that I am living in the midst of woods, and many of the wood birds are familiar everyday visitors at my door. The outlet from our spring spreads out into shallow pools, and in places just covers the dead leaves with an inch or two of water; across this is a fallen tree—now moss-grown, and a tiny bridge. It makes an ideal bathing place for the birds, and last April and May I spent hours in my hammock watching them, and found it the best place to see them all that could be found.

One day I noticed how close to me a Wood Thrush came, hopping on the ground, and pausing to look at me, but ever coming nearer. Suddenly it picked up a dead leaf and flew with it into a small hemlock about three yards off, and then I discovered that Madame Thrush was building a nest there. After that for two days she worked hard carrying mud and leaves and not minding in the least that I was so near.

A Black-throated Green-back Warbler, in gathering materials for her nest, came right under my hammock (when I was in it) picking up hairs from the horses, which she gathered until she had six or eight, sticking out of her bill both sides, and about four or five inches long. Then twice in flying back and forth to her nest she passed so close to my face that I felt the wind from her wings, and the sound from those tiny wings was like the roar of the wind in the distance. It seemed incredible that so small a creature could make such a commotion.

This little warbler was especially fearless. Once one flew toward me and poised on wing a few inches from me as if to find out what I really was. I saw it do the same thing several times before alighting on a tree. It would hang suspended in the air by the rapid beating of its wings, as a Hummingbird does before a flower.

Many of the other birds who came to bathe paid no attention to me but dressed their feathers in the tree over my head, or just in front of me. One bird alone tried to slip by unseen, or flew away at the slightest movement; this was the Chewink, or Towhee. But the Scarlet Tanager flashed his fire before me recklessly, the Rose-breasted Grosbeak also, and the Thrush, Oven-bird, White-crowned and White-throated Sparrows, Chickadee, Nuthatches, Goldfinch, Indigobird, Phoebe, Pewee, Crested Flycatcher, and many warblers and vireos came daily.

Do you know that nearly all the birds go down for a second dip? Af-

ter one bath and preening the feathers sometime, back they go for another plunge and such spattering and shaking of wings! They bathe just as a canary does in its bath tub.

Mrs. T. D. Dershimer, *Square Top, Wyoming Co., Penn.*

GENERAL NOTES.

Somateria dresseri Sharpe, Breeding Along the Maine Coast.—The American Eider formerly nested in considerable numbers along the Maine coast, but of late years they have been sadly reduced in numbers during the breeding season, although they still continue to be common winter residents. In 1895, at least ten pairs of these birds were nesting on various small islands near Isle au Haut. In June, 1896, I again visited the haunts of the Eiders and found evidence of only seven pairs having nested. On a small rocky ledge, covered with a scanty growth of Cow Parsnip (*Heracleum lanatum* Michx). I found evidences of there having been three nests, but some fisherman had robbed them of their eggs long before my visit. On another island, visited the same day, I found two nests seemingly ready for eggs, but saw no evidences of the birds in the vicinity. The nests of these birds are, however, readily distinguishable by the down in them, and by being situated on islands not frequented by other ducks, except the Red-breasted Merganser, the nest of whch is easily distinguishable.

A few days previous, on June 20th, well over toward Little Duck Island, I had found a nest with a partially incubated set of five eggs of the Eider, and this was the only nest found of this species containing eggs. It was found by flushing the female and was in plain view, being placed on the bare rock, near the point of the island. This was an unusual situation, as the nests of this species found elsewhere were fairly well concealed in the shelter of the various plants growing on the islands. An empty nest found this same day was also well hidden in the midst of a clump of Cow Parsnips. This plant seems to be a favorite hiding place for the nests of Eiders and Red-breasted Mergansers, but the fishermen are keen egg hunters so that the nests of both species are often robbed to form a welcome accession to the larder. It is only a question of a few years when these birds will cease to nest along our coast. Formerly they nested as far west as Muscongus Bay, while now Isle au Haut is their western limit. To the eastward of this they still appear in decimated numbers.

The nests are composed almost entirely of the dark-colored down from the breast of the female bird, and in her absence the eggs are usually covered with this down, which is done by the birds pulling the sides of the nest together over them. The eggs, which I mention finding on June 20, are of a greenish drab color, and measure 2.99 x 2.07, 3.04 x 2.06, 3.05 x 2.01, 3.11 x 2.04, and 3.09 x 2.08.

O. W. KNIGHT, *Bangor, Maine.*

BRUNNICH'S MURRE, *Uria lomvia*, ON LAKE ERIE.—Writing under date of February 5th and March 1st, Prof. E. L. Moseley, of Sandusky, Ohio, announces the capture of three specimens of this species on Sandusky Bay, December 19, 1896. The specimens have been carefully examined by him, and prove to be in immature plumage.

The entry of two specimens of *Uria troile* under date of December 18, 1896, on a migration schedule forwarded by Rev. J. M. Keck, of Mentor, Ohio, led to an inquiry which happily resulted in the purchase of the one specimen taken. Through the courtesy of Mr. H. F. Lapham, of Painesville, Ohio, who prepared the skin, it is now the property of the Oberlin College Museum. Careful examination of the specimen proves it to be an immature Brunnich's Murre, *Uria lomvia*. It was captured on Lake Erie near Painesville, Ohio. These two records, and the capture of Uria troile at Gibralter, Mich., as recorded in the Bulletin of the Michigan Orinthological Club, Vol. I., No. 1, page 10, indicate a decided inland movement of these closely related species.

LYNDS JONES, *Oberlin, Ohio.*

THE LARK SPARROW'S SONG.—A few Lark Sparrows are seen here every year during the spring migrations, and they seem to be getting more common yearly. I have seen none during the breeding season, but cannot say positively that they do not breed here. In 1895 I took some notes on the songs of a single individual. A noticeable feature was the frequency of harsh notes resembling "kah." Some of the songs resemble much the songs of the domestic canary, another is somewhat like the song of the Orchard Oriole. One song may be characterized by: "*Che che che wee wewewe chee kah;*" the *wee* with a rising inflection. Another is: "*Cher whee, cher yer yer whee cher yer yer.*" Another, very similar: "*Cher cher whee, cher yer yer chee whe whe whe.*" All songs are uttered rapidly and easily, and these given are among the most simple; the others were many of them too complex to be recorded wtth accuracy.

J. C. GALLOWAY, *Montogomery, Ohio.*

NOTES FROM WISCONSIN; AMERICAN GOSHAWK, *Accipiter atricapillus.*—That rare and ferocious bird, the Goshawk, made its first appearance, to my personal knowledge, in this locality the present winter. The first was seen in the early part of November. Two others were seen later, one of which was killed. They were very daring and persistent in their attacks upon the poultry, returning day after day and often not without success.

REDPOLL, *Acanthis linaria.*—In the winter of 1896 the Common Redpoll came under my observation for the first time, there being several small flocks in this locality. Perhaps they were common in previous winters, but owing to their resemblance to the Goldfinch at a distance, were not noticed. They are quite abundant this winter, being the characteristic bird of weedy fields and hedge rows.

CEDAR WAXWING, *Ampelis cedrorum.*—The Cedar Waxwing is becoming more abundant every year. Large flocks are often seen on Cedar and Siberian crab trees.

LAPLAND LONGSPUR, *Calcarius lapponicus.*—A few Lapland Longspurs have been observed.

GOLDEN EAGLE, *Aquila chrysaetos.*—Occasionally seen soaring about the points overlooking our small streams.

HOWARD P. MITCHELL, *Mt. Sterling, Crawford Co., Wis.*

NOTES FROM NORTHERN ILLINOIS. — AMERICAN GOSHAWK, *Accipiter atricapillus.*—An adult male shot in this (Winnebago) county on January 18, 1897. This is the first record I have of its occurrence here.

CANADA GOOSE, *Branta canadensis.*—Quite common this winter, but very few are taken.

REDPOLL, *Acanthis linaria*, were noted November 3, 1896, when they were quite common on a creek bottom in company with Goldfinches. They were very wild but several were taken, among them one red male. All taken were *linaria*. A few were again noted January 12, and January 18, 1897.

SNOWFLAKE, *Plectrophenax nivalis.*—A few Snowflakes were reported February 3, 1897. White-bellied Nuthatches and Titmice are more common this winter than usual and are more frequently seen within the city.

Prairie Chickens are as common as usual, while Bob-whites are on the increase, but the Ruffed Grouse will, I fear, soon be a bird of the past in this county.

AN UNUSUAL (?) WINTER PLUMAGE OF THE GOLDFINCH.—A neighbor of mine has a female Goldfinch which he slightly wounded and captured

two years ago. The first winter he assumed the usual winter dress, but this year he still has on his yellow dress and black cap. This is the first instance of the kind that ever came to my notice. Have you ever observed it with captive birds?

AN UNUSAL NEST OF THE CRESTED FLYCATCHER.—June 9th, 1895, I took a set of five fresh eggs of this species from a fence post beside a a railroad. The nest was discovered when I was climbing the fence, using the post as an aid. Neither parent was observed at all, though the eggs were left until several hours later. They were placed on a soft bed fifteen inches within the post and were reached from the top. The construction of this nest is as peculiar as its location, consisting of a mat of cedar bark, a large tuft of hair from Gray Rabbit, (*L. sylvaticus*); a quantity from Muskrat, (*F. zibethicus*); several large tufts from the Woodchuck, (*A. monax*) and about thirty feathers of the Mourning Dove. The hair is all in tufts as though taken from a dead body. The eggs are in all respects typical.

J. E. DICKINSON, *Rockford, Ill.*

NOTES FROM MISSOURI.—February 19th. For the last night or so some kinds of birds have been going over here in large numbers, as their notes could be heard quite plainly.

February 25th. The birds were going over again tonight in large numbers. As I was returning home about midnight their notes could be heard very plainly. They had chosen cold weather for their migrating as the temperture was down almost to zero and snow was falling. The next morning was rather foggy and they were still passing over but I could not distinguish their species, and I have been unable to go into the country to see what kinds they were.

SIDNEY S. WILSON, *St. Joseph, Mo.*

NOTES FROM OSAWATOMIE, KANSAS.—BIRDS AND NESTS DESTROYED BY A FLOOD.—The nesting season for the small birds in the vicinity of Osawatomie, Kans., was practically ruined last year (1896). Osawatomie lies between two rivers, viz., the Marais des Cygnes and the Pottawatomie. The former forms the northern boundary of the city, while the latter is located one fourth of a mile south of town. The Pottawatomie flows into the Marais des Cygnes river east of town. On the afternoon of May 22, the Pottawatomie commenced to rise about 4 P. M. and by 9 P. M. the whole valley was a sheet of water two and three miles wide in the widest places. Thousands of both eggs and young birds were destroyed by the flood.

An Usual Nest of Prothonotary Warbler.—On June 15, 1896, a farmer's boy reported to me a strange bird that had built a nest in the front gate-post on their farm. A few days later I chanced to visit the nest, which proved to be that of the Prothonotary Warbler (*Protonotaria citrea*) containing five half fledged young. The nest was fifty yards from the river, and the bank of the river at that place is twenty-one feet above the level of the water, there being no water nearer than the river. The post in which the nest was built stood within a few feet of an often travelled public road. The excavation was formerly that of a woodpecker.

An Albino English Sparrow.—While passing along the Mo. P. R. R. on Dec. 16, 1895, I was surprised to see an albino English Sparrow light within a few feet of me where I could examine it carefully. It was a female in the adult plumage. The secondaries, primaries and bastard wing were of a dull white color; the rest of the wing was normal The outer tail feathers were a dirty white, and the two middle tail feathers a dusky brown and ash color tipped one third the way with white. On January 10th, 1897, I noticed the same bird in almost the same spot that I saw it on December 19, 1896.

On Feb. 5th, '97, I noticed two female Bluebirds in town. Since that date they have been increasing in numbers until at the present date they are quite abundant in town and also the country.

W. S. Colvin, *Osawatomie, Kans.*

Notes from Oregon. Dwarf Hermit Thrush, *Turdus aonalaschkae*, was first seen April 2, 1896, and not more than five or six were seen during the spring. It does not stop here to breed and seems very shy. On January 8, 1897, I secured a specimen, in a dark fir woods, which was in good plumage. I think that it is not uncommon for them to winter here.

Russet-backed Thrush. *Turdus ustulatus.*—In 1896 the Russet-backed Thrush was first seen May 11. This is the most common thrush in western Oregon. From the Cascades to the coast nearly every swamp and thicket is the summer home of a pair. I think the nest and eggs are too well known for me to try to describe them. I do not think Audubon could describe the song. The bird always seems to try to do his best, sometimes getting in a note like the Wood Thrush. But with all its sweetness I am not sure that the song does not give him pain. It only makes one wish that he could hear *T. mustelinus.* I have seen the bird here as late as the first of October.

SHORT NOTES.

PURPLE GALLINULE, *Ionornis martinica*, on Sandusky Bay, April 28, 1896. Prof. E. L. Moseley, Sandusky, Ohio.

A RED CROSSBILL appeared at Glen Ellyn, Illinois, February 19. This is my first Glen Ellyn record. Benjamin T. Gault.

Mourning Dove, Rusty Grackle and Pine Siskin on the shore of Lake Erie, 12 miles north of Oberlin, February 13, and Bluebird, February 17, are the earliest Oberlin records. Lynds Jones.

Robins and Purple Grackles fairly common here February 19, exactly 20 days before the first were seen by me last year. Russell Gray, Philadelphia, Pa.

Migrations opened at Wady Petra, Illinois, February 28, with the arrival of a Bobin. March 8, Meadowlarks, Red-tailed Hawks, Mourning Dove, Killdeer, were recorded. Virginius H. Chase.

EDITORIAL.

WHERE DOES JUNCO ROOST?—A number of replies have been received answering this question, but before the answers are published there should be many more of them. Does Sunco pass the winter in your vicinity? If so, where does he roost during the night and in stormy weather? Answers to these two questions should be sent to the editor at once from every member. In this way the exact range of Junco for the past winter can be determined.

PINE SISKIN, *Spinus pinus*.—Early in the winter it was known that the Siskins were making a phenomenal movement southward. They were recorded in central Missouri and other localities where their presence was looked upon as unusual at least. Mr. Arthur T. Wayne, of Mount Pleasant, South Carolina, writes as follows: 'The Siskins were here in *enormous* flocks in December, 1896. They fed upon the seeds of the Sweet Gum, also in Short-leaf Pines. My first specimen was shot from the top of a pine 125 feet up. This is the *first* record of the capture of this bird here since Audubon found them near Charleston in 1833. The first Siskin was taken December 12, but the birds arrived in November.'

Nearly all reports indicate that the Siskins flock with Goldfinch. The question naturally arises, is it not possible that Siskins are present more often than we suspect, being mistaken for the Goldfinch? More

careful attention to the supposed flocks of Goldfinches will settle this point.

Mr. Wayne also reports a nest with two eggs very much addled, of the Bald Eagle, February 3, 1897.

LYNDS JONES, *Oberlin, Ohio.*

Mr. James Newton Baskett sends the following interesting letter :

You ask for a note, or so. I can only say that I am much surprised that the fly-catching habit of the Red-headed Woodpecker should be noted as anything new, as stated in BULLETIN 7, page 5, since it has been familiar to me all my life. I am sure there must be some mistake about Dr. Merriam being the first to observe this or even note it, since I am impressed with having seen it of record somewhere, before we had an Agricultural Department. In the South the boys have a trick of hurling a small stone almost vertically upward past the woodpecker's perch (when they note him at the aerial flycatching) and he will sometimes fly at the stone in its descent and be so stunned by it as to fall.

So, likewise, the foster brother act, noted by Mr. W. L. Dawson, BULLETIN 10, page 4, is not so rare as thought. I have seen Redbirds and others assisting other species of birds in feeding their young. In a cage in my own family, a Redbird (Cardinal) of the year took charge at once of an orphan canary placed with him, and fed it all its food. He was in every respect quite motherly, and the canary, besides it own song, learned that of its foster brother. See similar instance of wren in *Osprey*, January, 1897.

JAMES NEWTON BASKETT, *Mexico, Missouri.*

THE SWALLOW REPORT.

It is a pleasure to me to extend my sincere thanks to the many persons, members and others (and why not members ?), who have so kindly aided me in my work with notes and suggestions. My correspondence has been so great and my time so limited that I have failed to answer many of the letters. In addition to those answered I have received valuable notes from Joseph Grinnell, Horace A. Gaylord, C. D. McLouth, George D. Peck, J. Eugene Law and N. Hollister, who would have received prompt thanks but for the rush of business. I need notes particularly from the Middle and Gulf states and Canada. Please send in what notes you now have on hand and gain as many more as possible this season.

Don't wait until next fall before writing, as this report will be ready for publication in December, and what notes I have now I can work up at my leisure. I would ask all to *observe* rather than *collect*. A live bird possesses hundreds of possibilities for the student that a dead one does not. If you chance to live near a colony of Barn or Cliff Swallows you will find the egg shells which the parent birds throw out; preserve these, they are nearly as valuable for study as the finest prepared specimens.

In conclusion I would say, don't take too much pains in arranging your notes, or in the choice of paper. (Still I appreciate a finely arranged report.) One acquaintance used brown paper and lead pencil, but his notes were of almost priceless worth in the preparation of the report.

STEPHEN J. ADAMS, Cornish, Me., *Chairman.*

REPORT OF THE COMMITTEE ON MIGRATION.

There have not been as many notes sent in on the migrations of 1896 as were expected, though many are much fuller than usual. There is a disposition among observers to refrain from sending in notes because they may not be complete. This is a mistake, as such a note as this, which was received last year, "Yellow Warbler, May 4," may be of much value. We have a number of reports from observers who are not members and are very thankful for them. The Michigan Ornithological Club, through its secretary, Mr. Mulliken, has promised its aid, and we request all Chapter members to render the Club such assistance as they are able. With such outside assistance and active work on the part of our members, we hope for much in the future.

J. E. DICKINSON, *Chairman.*

ELECTION OF NEW MEMBERS.

The following are proposed for membership in the Chapter. For Active membership:

Frank M. Woodruff, Assistant Curator Chicago Academy Sciences.

Henry K. Coales, 136 Washington street, Chicago, Ill.

W. S. Colvin, Osawatomie, Kansas.

For Honorary Membership: Otto Widmann, Old Orchard, Missouri.

Adverse votes should be sent to the Secretary.

The following Associate members have been received since the last report: P. M. Silloway, Roodhouse, Ill. L. Whitney Watkins, Manchester, Mich.

PUBLICATIONS RECEIVED.

The Story of the Birds, by James Newton Baskett, M. A. This is the first of Appleton's Home Reading Books, which are edited by William T. Harris, A.M., L.L.D., United States Commissioner of Education. The body of the book covers 250 pages exclusive of index, editor's introduction, author's preface, and a very helpful "Analysis" of each chapter with suggestions for study. The Story of the Birds is told in thirty-two chapters or subjects, beginning with a discussion of "A Bird's Forefathers" running through the many problems of the bird's life up to his Modern Kinsfolk, ending with "An Introduction to the Bird" and "Acquaintance with the Bird." The Story is told in a pleasant easy manner, every point clearly stated, every statement based upon some accepted fact. The arrangement of the chapters is progressive and logical, and nothing of the first importance in the life history of the bird is omitted.

There are twenty full page illustrations, besides a full page cut of Archaeopteryx, and a very instructive diagram of the relationships of the larger groups; also some sixty-two well selected cuts in the text. The typographical appearance is unusually good, and errors are few.

The author's aim is rather to create and stimulate interest leading to personal study than to instruct. To awaken a lively interest in the living bird rather than in the specimen. To induce the inquirer to think out the problems which cluster about each action of the bird, not being content to simply discover some new trait or habit or song. To delve deep for those things which cannot be had for the asking, but which must be worked for earnestly and faithfully. This has induced the author to depart from the usual order, treating all of the birds as a unit instead of separating group from group. The new order is refreshing to the student, and cannot but prove stimulating to the beginner or casual enquirer. It is a departure in the right direction. The time has come when the critical study of specimens for the purpose of determining the exact status of any questionable species or form must be left to those who have access to the collections of large series of specimens which are built up for that purpose. We have urgent need to study the live bird and let it live for another to study. The author of this little book has shown us how to

study the bird and learn its story, in a simple natural manner, giving us of his experience as an enquirer of the birds about him in his everyday life. The book is published by D. Appleton & Co., New York City, and sold for $.65.

Birds of the Galapagos Archipelago, by Robert Ridgway. From the Proceedings of the United States National Museum, Vol. XIX, pages 459–670 (with Plates LVI–LVII.)

The Museum, Vol. III, Nos. 4 and 5, February and March, 1897. W. F. Webb, Albion. N. Y.

The Nidologist, Vol. IV, Nos. 6 and 7, February and March, 1897. H. R. Taylor, Alameda, California.

The Osprey, Vol. I, Nos. 6 and 7, February and March, 1897. Walter A. Johnson, Galesburg, Ill.

The Oologist, Vol. XIV, Nos. 2 and 3, February and March, 1897. Frank H. Lattin, Albion, N. Y.

Bulletin of the Michigan Ornithological Club, Vol. I, No. 1, January, 1897. L. Whitney Watkins, Manchester, Mich.

The Asa Gray Bulletin, Vol. V, No. 1, January, 1897. W. R. Kedzie, Agricultural College, Mich.

The Auk, Vol. XIV, No. 1, January, 1897, L. S. Foster, New York City.

The Iowa Ornithologist, Vol. III, No. 1, January, 1897. David L. Savage, Salem, Iowa.

WANTED! Clean, unbound back numbers of the *Auk*, and *Ornithologist and Oologist*. Will pay good cash prices for the right numbers.—Henry R. Buck, *Wethersfield, Conn.*

BULLETIN No. 14.

Old Series, Vol. IX. New Series, Vol. IV, No. 3.

The Wilson Ornithological Chapter of the Agassiz Association.

GENERAL NOTES.

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EDITED BY LYNDS JONES.

Subscription 50 cents a Year.

OBERLIN, OHIO.
May 31, 1897.

WHERE JUNCO ROOSTS.

Answers to the question: "Where does Junco Roost?" have been received from sufficiently scattered localities to furnish a fairly reliable record of its northern and southern winter range, and its roosting habits, for the past winter.

It appears to have been absent north of 42° during the greater part of the winter, and is reported as wintering north of 41° from only scattering localities and in especially favorable places. It was not common much above 40°, except in isolated places. Last winter it ranged further north in the extreme east and in the states bordering the Mississippi River than in Ohio and adjoining regions. Mr. Widmann found it wintering in Louisiana about New Orleans. His is the only report from the far south.

Junco's roosting habits are so interesting that contributors should be allowed to speak for themselves.

Philadelphia, Pa.—Within fifty feet of the side of our house there is a small patch of evergreen trees, mostly cedars and hemlocks, and in these trees the Juncos roost in large numbers every night through the winter. —Russell Gray.

Berwyn, Pa.—I have always found the Junco—one of our most common winter visitors—in the sheltered and briery nooks of old and neglected fence rows—here commonly called the worm or Virginia fence—in very stormy days, or early morning and late evening. They will also, whenever it is possible, roost in cedar trees or bushes.—Frank L. Burns.

Washington, D. C—At my home, in a suburb of the city, we have many Juncos throughout the winter (from October to the end of April), and having made a practice of feeding them, together with White-throated Sparrows and other winter birds (including of course, the English Sparrow—an unwelcome guest, however), we have many opportunities for observing them. The veranda of our house extends across the west, south, and part of the east sides, and is enclosed with diagonal lattice. Through this many Juncos make their way about dusk, and roost beneath the porch floor, probably upon the sills or braces. Of course I have closed all openings through which cats might possibly gain access to them. Very often, when returning home in the evening, I have startled from their hiding place Juncos that had taken shelter beneath the board walk, over which I was passing. I have also accidentally startled them (other birds as well) from the dense foliage of small red cedar trees in my yard,

as well as from the evergreen honeysuckle hedge with which it is enclosed.—Robert Ridgway.

Oberlin, Ohio.—Junco was entirely absent from northern Ohio during the past winter except in epsecially favorable places in the river gorges, in or near towns or cities. Here it roosted in the piles of brush thrown over the ledge of rocks, or even in the bed of leaves beneath overhanging ledges of stone.—Lynds Jones.

Montgomery, Ohio.—For the note which suggested this inquiry, contributed by Mr. J. C. Galloway, see Bulletin No. 12, page 9.

Meridian, Wis.—The Slate-colored Junco is seldom seen here during the winter, and never when there is much snow on the ground. Were last seen December 7, 1896, and first seen this spring March 29. I have found it roosting on the ground among dry leaves and weeds; more often on steep hillsides. It often roosts about farm buildings, in the sides of hay and straw stacks, and sometimes enters open buildings and sheds in stormy weather. It leaves us the latter part of April.—J. N. Clark.

Rockford, Ill.—The Junco usually winters here in small numbers, tho I have not observed any this year, but then, I have been out very little. When they have been noted it was around farm houses where there are conifers, which are used extensively here for protection and ornament, in which I have known them to roost.—J. E. Dickinson.

The following contribution from Mr. Widmann gives both the range and roost in two different localities. "I found it February 26, a mile south of New Orleans, and at Madisonville it was quite common March 5. In the immediate vicinity of St. Louis it prefers the ornamental evergreens for roost, especially red cedars and Norway spruces. Where such occur, particularly young trees thickly branched to the ground, Juncos roost in large numbers. They go to roost pretty early in the evening. On the farms I have seen them enter corn-shocks and out-buildings, taking to similar places as the English Sparrow. I may also say that they return to their winter home as other birds return to their summer home. The first winter I put up the feeding box in a tree near the house, the Juncos did not enter the box before late winter, driven to it by heavy snow. The next winter they had no fear from the beginning, and it was evident from their behavior that they had been there before. Ever since then they are regular boarders, and in cold weather never tire eating nuts. It is a common winter visitor from St. Louis southward.

To prevent misunderstanding, the box entered by my Juncos is not a nesting box with a small hole, but an open box 12 by 18 inches, and 6 deep. It is nailed against the trunk of an elm tree, 12 feet from the

ground, and is distant from my window in the second story 10 feet. In this we put smashed walnuts, whenever empty, all winter, day by day. The Blue Jays get the most of them, but they fly away with the pieces, and in doing so attract the attention of other birds to this source of continual supply. Our boarders, besides Blue Jays, Juncos and English Sparrows, are European Tree Sparrow, Tufted Tit, Chickadee, White-breasted Nuthatch, Downy Woodpecker, and Hairy Woodpecker These have been visitors every year for a longer or shorter period. Red-breasted Nuthatch was a boarder from November, '95 to about Jan. 20, '96. Yellow-bellied Sapsucker is seldom seen to enter the box ; he prefers the ham-bones, hung up in the same tree. Not entering, but attracted to the tree, are Golden-crested Kinglet (once the Ruby-crested in January) Brown Creeper, Bluebird, Robin, Flicker, Bewick's Wren. Also Cardinals (male and female) are among the boarders in cold weather, and White-throated Sparrows in late snows in March. Snow, of course, brings the greatest number, and on some days the tree looks enchanted ; birds of all feathers, waiting their turn.

OTTO WIDMANN, *Old Orchard, Mo.*

NOTES ON THE BIRDS OF OKANOGAN COUNTY, WASH.

Since the appearance of other notes under this title in the September and November BULLETINS, I prepared a brief, annotated list of the birds of this region, which appeared in the *Auk*, April, 1897, and was also issued as *Laboratory Bulletin*, No. 6, Oberlin College. Reference to this will make unnecessary in the present connection a review of the commoner species and leave me to speak at random concerning a few of the rarer sparrows and more noticeable warblers.

HEPBURN'S LEUCOSTICTE, *Leucosticte tephrocotis littoralis.*—The breeding of this rare species was conjectural until I was so fortunate as to encounter it on Wright's Peak during the summer of '96. We had been encamped from August 5th to 8th on a shoulder of the mountain, at an altitude of 8,000 feet, and I had caught several unsatisfactory glimpses of this glacier-sprite, but it was not until early morning of the last day, when we succumbed to the continual cold weather and retreated from the mountains, that I saw the birds well. A pair were feeding full-grown young, and as the restless youngsters flitted from pile to pile of the projecting morainic knobs along the foot of the glacier, I could not but

note how perfectly at home these fledgling ice-birds seemed. The wind was blowing piercing cold and a mountain storm was brewing, but their rich brown coats and rosy trimmings told of anything but discomfort and fear. The parent birds appeared to forage at somewhat lower levels for food, inasmuch as they repeatedly plunged over the mountain rim, and were lost to sight in the depths below.

BAIRD'S SPARROW, *Ammodramus bairdii*,—On September 5th, 1895, I found several of these birds on a piece of weedy bottom land where they seemed to be feeding on a little wild bean. Like many of their kin they kept close to the ground and flushed suddenly on a near approach, only to plump down again at no great distance. I noted them as abundant in this same situation on the 9th of September, and they may have lingered until the little beans were all gleaned from the ground.

Their spring passage the following year was more rapid. On the 29th of April, about a dozen were seen in an upland pasture mixing freely with *Zonotrichia leucophrys intermedia*. Only one individual was noted in the old haunt by the lake shore.

BREWER'S SPARROW, *Spizella breweri*.—As I stepped forth from my little enclosure on the edge of the Chelan townsite and before I had set my ears to test the quality of sounds, I became aware of a "chirring" from the sagebrush to westward, of different proportions from the customary trills of the Chipping Sparrows, so common there. Returning for my glass, after careful skulking I crept close up on the little vocalist. His strain was first a short *chir-r-r* of notes so rapid that it was impossible for the ear to individualize them, and then a trill which, if heard separately, would not attract attention in a chorus of Chipping Sparrows. When carefully discriminated, however, one noticed the lighter, less emphatic character. The bird kept low in the sage bushes and was with difficulty secured. Nature could hardly have designed a plainer and more inconspicuous nondescript if she had lain awake all night.

AUDUBON'S WARBLER, *Dendroica auduboni*.—The commonest of the Warblers in Okanogan county, although not found in the sage brush sections or wider valleys. This bird is a good mountaineer, and although I saw it in June on the lake shore, where it was probably breeding at an altitude of less than 1,000 feet, it was noted in August at all levels up to the glacier realm of 8,000 feet. It is undoubtedly the hardiest bird of its genus.

MCGILLIVRAY'S WARBLER, *Geothlypis macgillivrayi*.—A not uncommon resident in the underbrush of hillside springs and draws. One song heard reminded me strongly of that of a Dickcissel, though of course

lighter and much less penetrating, *sheep, sheep, sheep, shear, shear sheep*; or *sheep, sheep, sheep, sheep, shear, sheep.* Another song heard in Yakima county was much more varied and bright. A nest found in the latter place was barely lifted clear of the ground by the overhanging branches of a rose bush.

PILEOLATED WARBLER, *Sylvania pusilla pileolata.*—Although a number of birds were seen it was almost impossible to route them out of their favorite tangles long enough for inspection. I introduce them in this connection solely to describe the song which I heard repeatedly, but especially at Snoqualmie Falls on the west side of the mountains. It consisted of a single syllable repeated in a lively crescendo "chip, *chip*, CHIP, CHIP, *CHIP.*" I could not but contrast it with the song of *S. pusilla* heard this spring. The latter was a more varied strain of lighter and less emphatic character, *chee, chipititity, chee, chee.* This is of course quite unpronounceable at first, but conveys the idea to the eye.

WILLIAM L. DAWSON, *Oberlin, Ohio.*

GENERAL NOTES.

NESTING OF THE ROBIN, *Merula migratoria.*—On April 24, I found a nest in a wild cherry, about eight feet up and directly over about six feet of water. The robin flew off at my approach, and on climbing to the nest I found it contained one egg. The next day, April 25, being Sunday, I did not visit the nest, but on April 26, the nest contained three eggs. I supposed that the set would be completed on the next day, but the fourth egg was not laid until noon of the 28th, leaving a day and a half between the laying of the third and fourth egg. Incubation was apparently begun with the laying of the third egg, as I passed the nest several times each day and the female was always on the nest. I had intended to take notes on the incubation, but on April 30 no trace of the nest could be found, probably having been taken by some boys.

About April 28, a pair of Robins began a nest in a large pine back of our place, but they were driven away by a pair of Mourning Doves (*Zenaidura macroura*) before the first egg was laid. This is the first time I have ever seen the Mourning Doves interfere with any other birds, although they are very common here now.

RUSSELL GRAY, *Philadelphia, Pa.*

NOTES ON SOME WINTER BIRDS OF MERIDIAN, DUNN CO., WIS.—

Snowy Owls were quite abundant during November and December, 1896, and four were taken in a steel trap set on the top of a long pole in an open field. Goshawks were also unusually abundant during the winter, and what is more unusual, were nearly all in adult plumage, and mostly males. Of twenty-one captured, nineteen were in adult plumage, and eighteen were males. We usually have the young birds in far greater numbers than the adult. Pine and Evening Grosbeak were present but not in great numbers. Lesser Redpolls and Snowflakes were also represented in small numbers. J. N. CLARK, *Meridian, Wis.*

PINE SISKIN, *Spinus pinus*.—Further notes upon the unprecedented southward movement of this species have been received ; this time from the extreme south. Writing of his visit in Louisiana, Mr. Widmann says : "I found it first March 2, a flock of fifty, near Mandeville, La., north of Lake Pontchartrain, and again March 5, at Madisonville, La., also a good sized flock in company with Goldfinches. Then again March 13, in the woods on the right bank of the Mississippi opposite New Orleans, a few, of which Mr. Kopman, a local ornithologist, took a specimen, the first he had ever seen. Prof. Beyer and Mr. Allison, the other ornithologists of New Orleans, confirm his statement, and consider it a rare find."

The species was fairly common at Oberlin, May 22.

AMERICAN CROW, *Corvus americanus*.—While out collecting Crow eggs on April 22, 1897, with Mr. F. L. Burns, I found a nest containing two young Crows several days old, and Mr. Burns took a set of six eggs from a nest lined with human hair. This is rather an early date for young. RUSSELL GRAY, *Philadelphia, Pa.*

Is it generally known that early in the season the Towhee has a lengthy, fragmentary, soliloquizing song ? The general effect of it is like the song of Brown Thrasher when heard in the distance. The Towhee utters this song as he works about the brush-piles, his scratching not interfering with the song. In scratching for food he hops forward and then kicks back with both feet simultaneously, alighting at his starting point. Beetles and other articles of food are thoroughly masticated before being swallowed. J. C. GALLOWAY, *Montgomery, Ohio.*

WARBLING VIREO, *Vireo gilus*.—During the collecting season of 1896, having occasion to collect a few sets of eggs and nests of three birds, eight sets were taken as follows :

May 28, three sets of 4 eggs each. Incubated. Fresh.
" 29, four " " 4 " " 2 " 2 (slightly)
" 30, one " " 3 " " "

June 8th I again visited this locality and found and examined seven nests of these birds that had built and completed second sets, and nests, on the same tree, or in the immediate vicinity. Not any were over twenty-five yards from the site of the first nest. Six contained four eggs each, and one, three; three sets appeared to be slightly incubated and four were fresh. Time between taking the first sets and the building of new nests and completion of second sets, is as follows: In three (first) eleven days; in three (second) ten days; in one (third) nine days. The latter being the nest taken May 30 and containing but three eggs might not have been completed, although the first set of this pair contained but three. These second nests appeared to be more hastily built and contained less material than the first nests, and were generally built nearer the ground than the first nests.

J. N. CLARK, *Meridian, Wis.*

THE WORK FOR 1897.

Members should bear in mind that there are three committees at work upon the warblers, each one desiring material from all sources for their final report: The "Migrations" are under the direction of Mr. J. E. Dickinson, 1122 S. Winnebago street, Rockford, Ill. "Nesting" is under the direction of Mr. H. C. Higgins, Cincinnatus, N. Y, "Food" and "Song" under the direction of Lynds Jones, Oberlin, Ohio. Besides these committees there are others. Mr. Frank L. Burns, Berwyn, Pa., asks for notes on the *Flicker;* Mr. Howard P. Mitchell, Mt. Sterling, Wis., for notes about *Nestling Down;* Mr. Stephen J, Adams, Cornish, Me., for notes relating to the habits of the *Swallows;* and Mr. W. L. Dawson, Oberlin, Ohio, outlines the proposed work on *Geographical Distribution* in another place in this BULLETIN. Let these committees have your hearty cooperation in all of their proposed investigations.

COMMITTEE ON GEOGRAPHICAL DISTRIBUTION OF BIRDS.

The study of geography, like charity, should begin at home. Hence what I shall have to say by way of suggestion in outlining methods and

work will refer only to that which can be done in the garden, the orchard, and by the hedge, or on the occasional "day off." It is because we believe that there is no more fascinating or profitable nature study than that concerning the geographical distribution of animal life that we ask ourselves if there is not a necessary and important work which we may begin where we are. Birds, on account of their almost universal distribution and widespread movements, as well as for the reason that all the species in one locality can be learned and kept readily in mind, afford an ideal field for the investigation of the problems of specific variations, inherited traits and the influence of and accomodation to climatal and geographical changes.

Without proposing at present any elaborate scheme of co-operation among the members of the W. O. C., I wish to recommend for preliminary work two simple tasks, which, if undertaken and faithfully carried out will lay good foundation for fuller work. The first is what I should call the taking of *daily horizons*. That is, when you are in the field make a note of all the species seen, however common, and preserve these for future comparison. It will be a surprise to some to find how many species of birds may be seen on a little early-morning-before-breakfast ramble. Simple recording, however mechanical it may seem at first, will stimulate the powers of observation to a wonderful degree. I may instance sample "bags," or horizons, taken here at Oberlin this past winter and spring. On the 13th of February last Mr. Lynds Jones and I took a trip to the lake shore and found 18 species of birds—not of course counting such vermin as English Sparrows. By the first of April the number of resident and migrating species to be found on a day's tramp had reached 37. While by the 29th of the same month, between the hours of 4:30 and 6:30 A. M., we saw 55 species of birds in town and in a neighboring wood. The best horizon of the season was taken on the forenoon of May 10th, when we found 76 species of birds present, including 18 kinds of warblers.

In connection with this Mr. Jones has an excellent scheme in a pass-book of quadrille-ruled paper. In this he enters every bird as it appears each year and allows a space, or square, for each day throughout the remainder of the season. When returning from a morning ramble he enters the number seen after each species, however common. In this way, by glancing over the pages, the exact dates of arrival and departure of any given bird may be easily noted.

Another plan and one requiring a little more consecutive attention is the taking of the *bird census* for a given locality. Such expressions as,

"common", "tolerably common", "abundant", "rare", etc , which we constantly meet with, do not tell the story. To get any adequate conception of the various relations of different genera and species throughout the country we need to make an approximate estimate of their numerical relations based on reliable data from different localities. Lay out a given section, however small, a pasture, a swamp-lot, or an orchard and count the exact number of each species you find present at a certain time. It is evident that by laying meadow to pasture and swamp to copse one may obtain a fairly accurate estimate of the bird population.

These two plans are submitted to the Chapter as forming the present work of the Committee on geographical distribution. The first must necessarily be continued for a term of years to be of more than individual value, but it is believed that it will, as a skeleton or framework of field observations, provoke a discriminating interest in the birds afield, which alone would be worth the trouble, and that if carried on it will afford useful material for correlation papers.

The second plan is evidently available for immediate service although publications cannot be undertaken until some considerable number of censuses have come in. All those who are willing to undertake this work are asked to submit their results to the chairman of the Committee for correlation and ultimate publication. W. L. Dawson, *Oberlin, O.*

EDITORIAL.

When does the Whippoorwill arrive at your station? When does the Purple Martin arrive at your station? This information is earnestly desired from every member so that a record of the movements can be made, and the controversy over earliest arrivals settled. Write your earliest records for these two species on a postal card and mail to the editor at once. The records of previous years would also be welcome.

We gladly note the growing success of the new ornithological art periodical, "*Birds*," published by the Nature Study Publishing Company of Chicago. It has come to fill a want long felt and gives promise of being able both to interest the uninitiated and to delight the professed votaries of the birds. Each month a varied assortment of mounted bird groups from all climes is reproduced in colors, and every plate is accompanied by a simple descriptive text, together with a short talk to the children purporting to be by the bird itself.

Numbers 1–4 of the monthly have appeared, and while all the plates

are not of uniform excellence as to pose and fidelity of coloring, there is a determination to improve manifest and some of the color photographs must be pronounced superb. There is not a weak plate in the March number and the "Barn Swallow" alone is worth the price of the magazine.

Of course the periodical aims primarily to reach juvenile readers, but none of us have outgrown an appreciation of the faithful delineation of bird life. Hence a word of suggestion may not be deemed amiss. First by all means let the proper *scientific name* be attached to every bird-plate. A modestly printed Latin name (in parenthesis if you like) will not scare the children and will greatly add to the value of a picture in the eyes of those who care to know a bird accurately in its relationships. And along this same line too, while a bird is being painted so truly, why not tell us briefly what sex is before us ? what seasonal phase of plumage is depicted ? and what locality that precise subject hails from ? All these points would add to the educational value of "*Birds*" and need not interfere in the least with its commendable work for the children.—W. L. D.

An invitation to attend the regular meeting of the Southern Division of the Cooper Ornithological Club, to be held in honor of the late Major Charles E. Bendire, has been received. The meeting, was held at the home of Otto J. Zahn, 427 S. Hope St., Los Angeles, March 27, 1897.

NEW MEMBERS ELECTED.

The April election of new members resulted in the election of the following persons :

For Active Membership : Frank M. Woodruff, Assistant Curator Chicago Academy of Sciences ; Henry K. Coales, 136 Washington street, Chicago, Ill. ; W. S. Colvin, Ossawatomie, Kansas.

For Honorary Membership : Otto Widmann, Old Orchard, Missouri.

For Associate Membership: John W. Daniel, Jr., Lynchburg, Va.

PUBLICATIONS RECEIVED.

The Birds of Colorado, by W. W. Cooke, Bulletin No. 37, Technical Series No. 2, State Agricultural College, Agricultural Experiment Station. A catalogue of 363 species of birds which have been found within the state, 230 of which are summer residents, and 51 are stragglers. The introductory chapter gives us a glimpse of Colorado topography and cli-

mate while defining the scope of the work in hand and suggesting profitable work in future. Following the introductory note, nine pages are devoted to a "Classification of Colorado Birds" under twelve heads according to their occurrence in the state, as "Residents", "Winter Visitants", regular and irregular, "Summer residents" subdivided under five heads according to their breeding range. "Migrants" regular and irregular from different directions, and "Stragglers." "Dates of Migration" for three localities are compared with dates of arrival of the same species at St. Louis, Mo. An exhaustive bibliography is followed by "The History of Colorado Ornithology," beginning in 1807. In the body of the work the 363 species are treated in the order of the A. O. U. check list, each one being fully annotated. The vertical breeding range of breeding birds is given, adding greatly to the interest in such species. This work easily takes first rank among the published state catalogues of the west. A map of the state illustrating the topography would add greatly to the value of the work.

The Story of the Farallones, by C. Barlow and H. R. Taylor. This neat little booklet contains twenty-eight photo-engravings of more than usual excellence, illustrating the physical features and bird life of that paradise of the birds ; which, with the eleven pages of well written text descriptive of the island life and features, makes one feel well acquainted with the place. The fact that the islands have lately been closed to visitors makes it the more necessary to possess one of these booklets, which can be purchased of H. R. Taylor, Alameda, Calif., at the very low price of fifty cents. No one can afford to be without a copy.

Catalogue of a Collection of Birds Made by Doctor W. L. Abbott in Madagascar, with Description of Three New Species, by Charles W. Richmond. From the Proceedings of the United States National Museum, Vol. XIX, pages 677–694. An annotated catalogue of 83 species representing 39 families of birds.

A Preliminary List of the Birds of Okanogan County, Washington, by William L. Dawson. Reprinted from the *Auk*. An annotated list of 143 species positively known to occur in the county, and a hypothetical list of ten additional species. This list, the author tells us, was made during a residence of fourteen months at Chelan, on Lake Chelan, June, 1895 to August, 1896, during the intervals of labor as a Home Missionary. The annotations are well selected, intended to acquaint the reader with the habits and nesting of the species whenever possible, and in many cases with the characteristic note and song. Coming from a region so

little known, it is doubly welcome as a contribution to the subject of distribution.

"*Some Common Birds in their Relation to Agriculture*," by F. E. L. Beal, B. S., Assistant Orinthologist, Biological Survey, May, 1897. Farmer's Bulletin No. 54, of the U. S. Department of Agriculture. In this Bulletin there are treated in their relation to agriculture, the Cuckoos, the Woodpeckers, Kingbird, Phoebe, Bluejay, Crow, Bobolink, Red-winged Blackbird, Meadowlark, Baltimore Oriole, Purple Grackle, the commoner Sparrows, Rose-breasted Grosbeak, Swallows, Cedarbird, Catbird, Brown Thrasher, House Wren and Bluebird. A statement of the sorts of food eaten is based upon stomach contents of a sufficient number of specimens to make the statement reliable. The object of the bulletin is to show that while the species under consideration may seem injurious sometimes, or may even be injurious to some extent, they are on the whole, beneficial to the agriculturalist on account of the hordes of noxious insects destroyed. The effort of our government to determine the exact relation of the birds to agriculture is a laudable one, and the conclusions reached may well be heeded.

The Museum, Vol. III, Nos. 6 and 7, April and May, 1897, W. F. Webb, Albion, N. Y.

The Nidologist, Vol. IV, No. 5, April, 1897. H. R. Taylor, Alameda, Calif.

The Osprey, Vol. I, No. 8, April, 1897. W. A. Johnson, Galesburg, Ill.

The Oologist, Vol. XIV, Nos. 4 and 5, April and May, 1897. F. H. Lattin, Albion, N. Y.

Bulletin Oologist's Association, No. 1, March 15, 1897.

The Fern Bulletin, Vol. V, No. 2, April, 1897. W. N. Clute, Binghamton, N. Y.

The Observer, Vol. VIII, No. 5, May, 1897. E. F. Bigelow, Portland, Conn.

The Microscopic Bulletin and Science News, Vol. XIV, No. 2, April, 1897. Queen & Co., Philadelphia, Pa.

WANTED! Clean, unbound back numbers of the *Auk*, and *Ornithologist and Oologist*. Will pay good cash prices for the right numbers.—HENRY R. BUCK, *Wethersfield, Conn.*

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BULLETIN No. 15.

Old Series, Vol. IX. New Series, Vol. IV, No. 4.

The Wilson Ornithological Chapter of the Agassiz Association.

THE

OBERLIN GRACKLE ROOST,

BY LYNDS JONES.

Issued Bi-Monthly as the Official Organ of the Chapter.

OBERLIN, OHIO.
July 30, 1897.

INTRODUCTION.

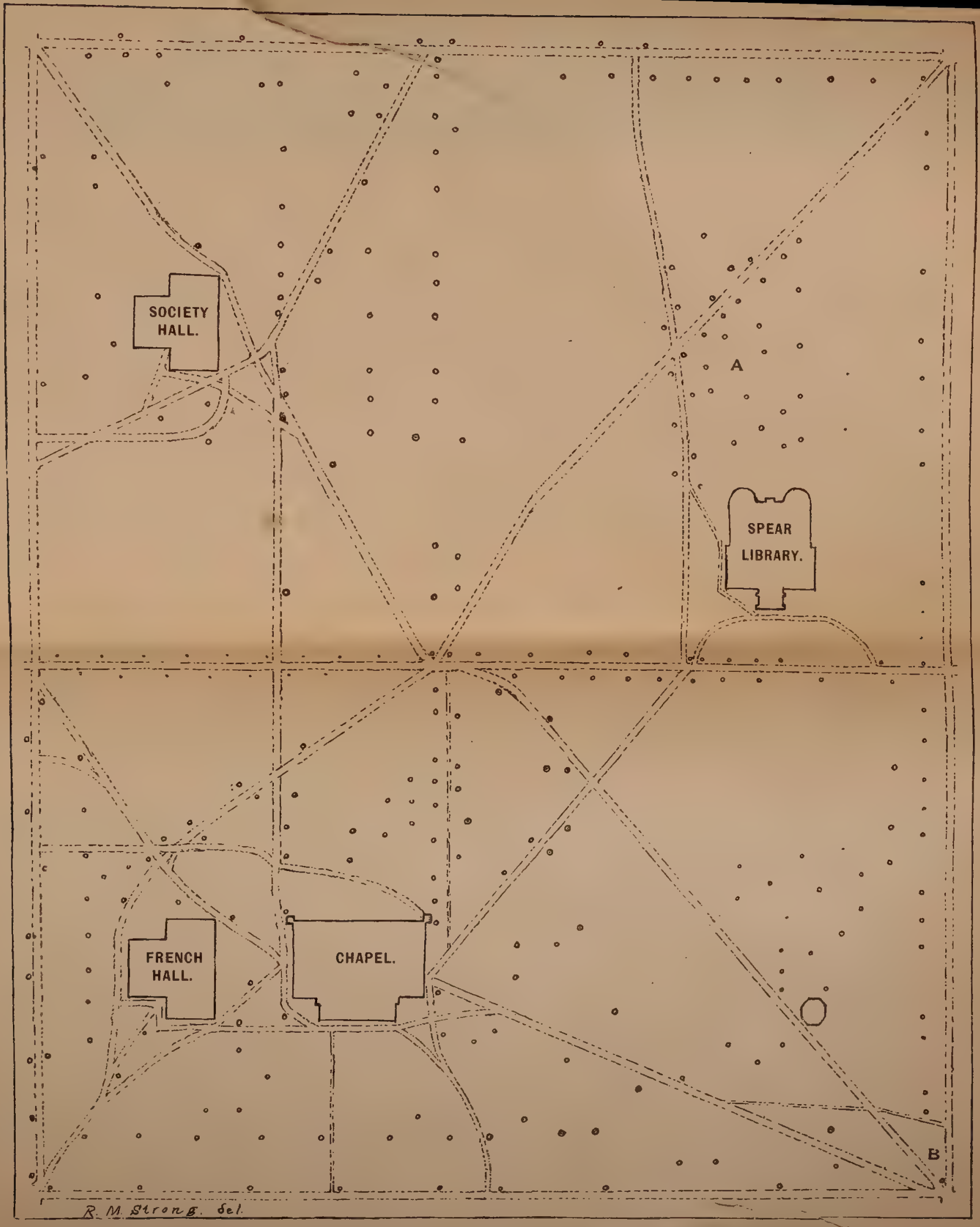
This account of the Oberlin Grackle Roost is based upon three years' more or less continuous study from the first appearance of the birds in the trees to the final departure of the last one. Thus far the present year (1897) has added little to what has already been learned, partly due to a pressure of other duties during the early weeks of the gathering of the birds, partly because it is yet too early in the summer for any marked features in the habits to be looked for.

The facts given are taken from notes written on the spot day after day, and while I cannot hope that there are no errors of observation or interpretation, I shall be satisfied if this account of a single gathering stimulates others to a study of any similar gatherings within their reach. It would be interesting and valuable to know in how many villages and cities of each state such roosts occur, with the numbers inhabiting each roost. There must also be many in swamps and woods far removed from villages, in some parts of the country. Mention of such would show in what regions the grackles still cling to old habits.

It gives me pleasure to acknowledge the kindness of Mr. R. M. Strong, who prepared the map of the College Campus, and whose friendly advice and encouragement have been greatly appreciated. Thanks are also due the College Y. M. C. A., by whose kindness the map of Oberlin village has been secured. Any acknowledgment of thanks would be incomplete without mention of the kindly interest and valuable suggestions of Professor A. A. Wright, and the enthusiasm of the students of my ornithology classes, which have been a constant inspiration and incentive to better and more faithful work.

LYNDS JONES.

OBERLIN, OHIO, July 30, 1897.



A—Grackle Roost. B—Historic Elm. o—Large Trees. •—Small Trees. ⊙—Conifers.

------—Walks.

THE OBERLIN SUMMER GRACKLE ROOST.

The forces of nature in action all about us are untiring in their recurrence, and yet how few of them ever reach even the surface of our consciousness. We enter some new field of study and investigation only to be amazed at our stupidity in not seeing those things which may have touched us every day of our lives before. Thus it is that nature study is so fascinating to most of us; every day is full of surprises. This is, perhaps, more true of the study of birds than of almost any other living things because we have the birds always with us in their varied beauty, the charm of their song and the intense activity of their lives. They seem to speak directly to us in a language which we can sometimes partly understand, and which we can always appreciate. The measure of our knowledge of the birds is often not the degree of our intimacy with any of the many species, or, indeed, all of them if that were possible; for if a species is well known and common we are too much inclined to pass it by with the thought that there is little more worth knowing about it, to study with more care some rare species from whose history we are pretty sure to discover the hint of some general truths never before suspected in the commonplace life of the more familiar species. Many "Life Histories" of the birds have been written, shedding much light upon the vexed questions of our favorite science; but I venture to say that the entire life history of even our most common birds has never been approached, certainly not in any one work. Thus it is possible for any of us, by careful, patient study, to add greatly, it may be, to our imperfect knowledge of the birds.

There is nothing new in the announcement that many birds which may or may not be gregarious at other times, congregate in large numbers to pass the night together in some favored spot. Alexander Wilson was acquainted with this fact, and no doubt others before him. It has been noticed and mentioned by later writers from time to time, but this interesting habit has not received the attention it deserves in literature until within recent years. We are indebted to Mr. O. Widmann for an account of the "Crow's Winter Roost at St. Louis, Mo.,"* to Mr. William Brewster for an accurate account of the "Summer Robin Roosts" near Cam-

*Crow's Winter Roost at St. Louis, Mo., *Ornithologist & Oologist*, February, 1888, p. 17.

bridge, Mass.,* to Mr. William T. Davis for an article on "Staten Island Crows and their Roosts,"† to Mr. O. Widmann again for a description of "A Winter Robin Roost in Missouri,"‡ and to Abby F. C. Bates for acquaintance with "A Swallow Roost at Waterville, Maine."§ In the scanty literature at my disposal I can find no other account of roosts, except by casual mention.

Conspicuous and well known as the Bronzed Grackle is to nearly every one, he has received almost no attention from students of birds, if we are to judge from printed accounts of his roosting habits during the summer season. I find mention made of such a habit in Vol. I, p. 333, of *Wilson's American Ornithology*, and casual mention in the writings of many subsequent authors, but nothing approaching a careful study of it. Some tell us that these gatherings are in the shade trees of villages, towns or cities, others that the birds still cling to their primitive habit of passing the night in thick woods or swamps. There is, therefore, nothing unique in this gathering in the heart of Oberlin. In this part of the state the grackles seem to prefer such places to the country. In the hope of throwing a little more light upon the life history of a species already so well known, I may be permitted to discuss somewhat in detail this favorably situated roost.

The grackles have had a summer rendezvous somewhere in the village of Oberlin for no one knows how many years. There is a fairly accurate record of them as far back as early in the eighties, but earlier than that recollection is at fault. Their habit of roosting in the trees whose branches overhang a public or private walk has brought them into ill repute, and they have been driven from place to place in the village by irate property owners until forced into the campus, which is virtually the public square. Here they have enjoyed comparative peace, because it is everybody's and therefore nobody's business to drive them out. Independence Day, with its deafening din and showers of fiery hail, has been full of terrors for the grackles, but they have endured it all for the sake of the old habit.

There is nothing about the situation of Oberlin that would seem to make it a more desirable place in which to spend the night, in the eyes of a grackle, than any one of the many remnants of woods in the immediate vicinity. The village lies in a plain region 250 feet above lake Erie, cut

*Summer Robin Roosts, *Auk*, Vol. VII, October, 1890, p. 360.

†Staten Island Crows and their Roosts, *Auk*, Vol. XI, July, 1894, p. 228.

‡A Winter Robin Roost in Missouri, etc., *Auk*, Vol. XII, January, 1895, p. 1.

§A Swallow Roost at Waterville, Maine, *Auk*, Vol. XII, January, 1895, p. 48.

COLLEGE BUILDINGS.

1—Chapel.
2—Peters Hall.
3—Spear Library.
4—Warner Hall.
5—Science Laboratory.
6—Cabinet Hall.
7—Men's Gymnasium.
8—Society Hall.
9—French Hall.
10—Talcott Hall.
11—Baldwin Cottage.
12—Sturges Hall.
13—Lord Cottage.
14—Council Hall.
15—Stewart Hall.

CHURCHES.

16—First Congregational.
17—Second Congregational.
18—Baptist.
19—Methodist.
20—Episcopal.
21—Rust Methodist.
22—Catholic.

23—Judson Cottage.

TOWN BUILDINGS.

24—Town Hall.
26—Union School.
27—Pleasant Street School.
28—Prospect Street School.
29—Water Works.

by the slight gorge of Plum creek, twelve miles south of lake Erie, three miles from Black river on the east, and seven miles from Vermillion river on the west. Both rivers flow in a northerly direction to the lake. The country is liberally dotted with remnants of the primitive forests which once covered the land, many of them dense enough to afford excellent protection for more than all the grackles in the county. The village is more than usually well supplied with shade and ornamental trees, and the campus will be seen to possess at least three distinct groves. These groves contain maples, elms, conifers and oaks in varying proportions. A glance at the map of the campus will make clear the position of these groves. All of the trees in the roost grove are maples; those in the grove north and east of Society Hall are mostly elms, while those north of the Chapel and French Hall are maples, elms and conifers, and a few trees of other varieties. The other trees of the campus are of no importance in the discussion of the roost, except those along the north boundary. These are of various kinds, mosly large, with wide spreading branches and dense foliage. The campus is nearly level, but with a slight depression beginning north of the west side of the chapel and running nearly south-east, ending a little west of the corner of the street.

Turning now to the map of Oberlin, the position of the campus in its relation to the rest of the village will be seen. The representations of the buildings are far too large in proportion and those of the streets are far too wide, but that does not matter. North of Council Hall (No. 14) is an orchard of old trees whose branches interlace, and south of the First Congregational Church (No. 16) a considerable number of maple trees form a secure hiding place, by their intertwining branches. Many of the larger village blocks are unoccupied in the center, and are pretty well filled with trees besides the trees lining the streets each side. In the lower left-hand corner of the map "Westwood Cemetery" will be seen. East and a little south, there still remains a small natural grove of tall trees—Ladies' Grove—through which Plum creek flows, and immediately east of that the large new water-works reservoir. On the south side of East College street, between Spring street and the railroad, there is an extensive lawn and orchard in which I am told that the grackles once roosted. Later, when driven from here, they were to be found between Water and Pleasant streets near Plum creek, and still later at the intersection of East College and Pleasant streets, from which place they sought their present quarters on the campus. While roosting in the eastern part of the village the birds seem to have returned at evening from the

south-west, passed over Ladies' Grove, followed the course of the creek downward, and so reached their roosting place.

The grackles first occupied the campus trees in June, 1893, when a small company was in the habit of spending the night there. The number was never large, probably less than 500 at any one time during the summer. The following summer there was a marked increase in the number occupying the trees, but still not a company large enough to attract the attention of the casual observer. Absence from town during the greater part of the summer of 1895 prevented any systematic study of the roost and its nightly occupants during that year. An effort to determine the number of individuals was made late in September, which resulted in an estimate of 3000. It is almost certain that the number at this time was smaller than a little earlier, because every day noted a decrease in the birds occupying the trees. It was learned that at least nine-tenths of all of the birds came from the east-south-east, apparently from the region of Black river, which lies about three miles distant in that direction. A few small companies came in at a considerable elevation, but the great majority skimmed along just above the tree tops. By the end of the second week in October all had dispersed.

Practically the entire summer of 1896 was devoted to the study of this roost and the habits of the birds occupying it. Spear Library proved an excellent point for observation, the highest part of its roof being almost on a level with the tree-tops, and its north end removed only a few rods from the southernmost row of trees of the roost. But the point of observation varied with the habits of the birds and the time of day, as will be seen later. Several unsuccessful attempts were made to determine the exact feeding grounds of the birds. Neither horse nor bicycle is in the same class as the grackle a-wing, and during the day they could not be found. From some high vantage point their approach at night could be watched, and their general direction in that way determined, but that was all.

This habit of collecting in such large companies to pass the night together is so interwoven with the other habits of the birds that the whole life history of the grackle must be known before any correct explanation can be hoped for. The gregarious instinct seems to pervade his whole being and finds expression in every phase of his life. He winters in communities, migrates in communities, nests in communities and even molts in communities, as we shall see presently. It does not seem incongruous, therefore, if he becomes partial to communities of men instead of clinging to the old habit of nesting and roosting in woods

and swamps removed from civilization. In many parts of the country he certainly has gone from his former haunts to the habitations of man, and has been enough pleased with the change to continue to do so each successive year.

Let us follow the life history of the grackle from the day of his arrival at Oberlin in 1896, to the day of his departure.

The persistent cold weather of early spring was decidedly unfavorable to the early migratory species of birds, but the van-guard of the grackles reached Oberlin on March 9, very little later than usual. The continued cold weather during the next two weeks held the less hardy individuals in the south. An increase in the number present was noticed on March 24, and on the 28th the grackles were conspicuous among the many other migrating species. A small company paid a short visit to the roost late in the afternoon, showing clearly by their actions that they were well acquainted with the place. From this time on, at irregular intervals, flocks of varying size visited the roost, though none passed the night in it: they seemed to prefer the trees in which they finally built their nests. During the day few were seen in the village, but at evening their voices made them everywhere evident.

On April 12 mating began, in many cases apparently ending at once, since the first completed nest was found on the 20th. It was not possible to determine whether both birds were engaged in building the nest. On May 14 young birds about four days old were found. This would make the period of incubation about fifteen days.

May 16 seemed to be the first day on which sufficient numbers to attract attention began to resort to the roost at night. Previously the old males had passed the night near the nest, but now they were not to be found near it late in the evening. An actual count made on the 21st gave the record of 100 birds leaving in the morning. Another count was made on the 23d, when 352 birds left the trees, all old males in full plumage except one young with tail feathers about half grown. Attempts were made to count the arrivals in the evening, but the constant shifting about of the earlier arrivals among all of the trees on the campus, made any degree of accuracy impossible. None of the birds seemed to go far away from the trees in the morning, and all came from near the ground and from the immediate region in the evening. This, as well as their actions, led me to strongly suspect that nearly if not quite all of them had nests in or near the village. The young bird was fed several times after settling in the trees. His begging call was heard after all other noises had ceased.

This small company was recruited from day to day, first by such old males as had not already been able to shift the care of the nest or young upon the mate, a little later by the more forward young, and about July 10, by the more backward young and the old females. This order of recruiting the roosting host was made very evident by the desertion of the nest at night, a point which was carefully noted. The sudden complete desertion of the nest by the old females and young and the simultaneous decided augumentation in the numbers found at the roost was very noticeable about July 10. At this time the trees became so crowded full of birds that other places were sought and occupied by the overflow. On the 14th a few small campanies began to pass the night in the shade trees on North Professor street, and on the 20th more were seen to leave and settle in the trees on North Pleasant street south of the school house. A few were contented with the low orchard trees north of Council Hall. On the evening of July 17 the birds came in at the rate of 52 a minute for an hour, the flight terminating with the arrival of an uncountable company just as the sun sank below the horizon. There must have been fully 5000 birds in the trees of the roost on this date, and 500 more in the neighboring trees. An actual count was impossible but a fairly accurate estimate was arrived at from noting the appearance of the trees immediately before the arrival of the last great flight, counting the birds in sight, and their appearance after the flight; and also noting the time occupied by the last flight in passing a given point, the number of birds abreast being known. These two methods gave practically the same result.

During the early part of July the birds did not wander far from the roost at any time, but by the first of August lack of sufficient food in the near vicinity forced them to go farther, when none were seen in town during the day. Naturally enough, with the necessity for a wider range for food came a change in the order of arrival and departure. The birds no longer came straggling in from near the ground and from all directions, but arrived in greater or less companies from above the tree-tops after considerable flights across the country. But a far better understanding of this change will be obtained if a detailed account of the arrival and departure for two widely separated times is given. The order of departure in the morning and arrival in the evening of May 23 will well illustrate the earlier manner.

Arrived at the roost at 3:00 A. M. Temperature 50°; air chilly. Partly cloudy. Station: beneath a tree north of the roost.

3:00. No evidence of bird life in the trees.

3:15. A few birds began to sing.

3:30. First one left the trees.

3:31. Ten have left, and small companies of from three to twenty left every few seconds until 4:05, when the last one departed, accompanied by a young one. 352 were counted leaving. At 3:40, robins, and at 3:45, cowbirds were seen to leave the trees. The last company of about a dozen cowbirds was driven out by four old grackles at 4:00. All the birds seemed to be singing up to the last ten minutes before the trees were entirely deserted. The cowbirds, however, were not heard at all until 3:45, when but few grackles remained. Robins were heard shortly after the first grackle began to sing, and were heard as long as any remained in the trees. None of the birds went far away at first, but seemed to have business close at hand. All but the youngone were old birds.

In the evening observations were taken from the roof of Spear Library. The sky was almost clear, the air warm and still.

6:45. Three grackles arrived from the south, but soon flew away again. They were calling.

6:55. A straggling flight of from one to ten individuals every few seconds began, and ended at 7:15. The birds came in from the south and east in about equal numbers. There was no large flight at any time, nor any concerted action except in the small companies. Nine-tenths came from low down among the trees, the rest at about 100 feet elevation above the tree-tops. These had apparently made a much longer flight than the others and came in even smaller companies or singly. A very small proportion arrived singing, or sang immediately after settling in the tree-tops, but there was little noise at any time. The flight of all was rapid and straightforward, and the tail was not carried in the keel-shape, except by those coming in from the neighboring trees. The last small company arrived at 7:20, as darkness settled down. There were no females and only the one young of the morning in the company. As careful an estimate as could be made placed the number occupying the trees at 500. The earlier arrivals remained in the tree-tops for some time before sinking into the foliage, but the later ones usually disappeared at once. Until some minutes after the arrival of the last company there were always a few birds to be seen in the tree tops. Before it became too dark to see clearly every bird was out of sight. Settling into the foliage and shifting for position occasioned considerable scolding, until darkness brought quiet.

Cowbirds began to put in an appearance even earlier than the grackles,

but none ventured into the trees at first. They came from the south-east in companies of from five to ten individuals, avoided the trees of the roost and settled in the grove on the west side of the campus. At 7:00 more than fifty cowbirds from these trees came dashing into the roost and disappeared at once. A little later a smaller company dashed in. From this time on the cowbirds flew directly to the roost without molestation from the grackles; previously the grackles had resisted attempts to share the roost with them. None of the cowbirds were singing, and but few uttered the whistling note. There were about 100 cowbirds, but no robins.

The contrast between the actions of the birds early in the season and relatively late will be made evident by the record of the departure and arrival of the grackle host on September 7. The sky was clear, the air chilly but still, temperature 50° in the morning. Station: 300 feet west of the roost, commanding a view of the north, west and south-west sides.

Arrived at the roost at 3:30 A. M. No birds stirring.

4:00. The first sleepy note was heard.

4:15. Several awakened and sang.

4:30. Many were singing and shifting about in the trees.

4:40. Very noisy, and much shifting about. Cowbirds began to leave. By 4:50, 300 counted leaving,

4:50. Several hundred grackles came to the roost from the neighboring trees where they had passed the night.

4:55. Grackles coming from all directions and settling in the roost with much noise and scolding; the most sink out of sight.

5:04. Several come from the north-west, the most stop in the roost, but as the rear guard passes on southward those in the roost rise and follow in one continuous stream which flows up out of the trees where few birds were seen before, over the still slumbering village and away into the south-west, leaving an oppressive stillness where a moment ago the air was filled with their voices. The birds did not rise from the trees in one mass as we have so often seen them do, but in consecutive order from the south to the north edge of the group of trees, as though by previous arrangement, giving the impression that the foliage was melting away into that black stream. The appearance of the departing birds created a strong impulse to be up and follow them. I did follow them well out into the country, but soon found myself hopelessly beaten in the race. As long as it could be seen, the flock remained intact, and did not stop to rest. The flight was near the ground, and followed the contour of the country closely, rising only to clear farm buildings and woods,

then dipping again to the former level. The lowermost birds were scarcely more than twenty feet from the ground. While the birds were flying there was no singing and not much noise of any kind except that made by the wings. It was evident that the birds had some definite feeding ground selected, toward which they were hurrying in a straight line.

During the day no grackles could be found within four miles of Oberlin in any direction. From the top of Spear Library I watched them come in at evening.

5:14. Five arrived from the north-east, flying high.

5:17. Three more heard in the trees of the roost.

5:20. Three arrived from the north-east,

5:24. One from the south settled in the roost.

5:26. One from the south settled in the roost.

5:27. Seven from the south settled in the roost.

5:32. Thirteen from the south settled in the roost.

5:34 to 5:45. About 5000 arrived from the south, settled first in the trees south of the building, then passed to the roost or to the trees west. They came in companies of from 200 to 800, forming an almost continuous flight. There was very little singing and no continuous chatter while flying.

5:50. 200 from the north and 150 from the south. During the next five minutes about 100 arrived, the most from the south, but a few from the east.

5:58. 300 from the east-south-east. These and those of the previous flight settled in the trees at once.

There was much shifting about and flying to and from the roost until 6:00. One attempt to settle in the roost at 5:55 did not succeed. Probably less than half of all the birds which finally passed the night in the roost were there at 6:00; the rest were scattered in the neighboring trees, or restlessly flying about overhead. There was no singing, and little scolding or sounding of the alarm note.

6:02. Many returned to the roost from the north-east.

6:03. Grand return from all directions.

6:04. 150 arrived from the east.

6:05. The birds well settled down in the foliage.

6:07. Ten arrived from the south.

6:10. 100 left the roost and flew to the trees some distance east on North Pleasant street. Very few in sight in the trees.

6:15. Practically all out of sight in the foliage. A few minutes later

all noise had stopped, when it became too dark to see the birds more than five rods away.

About 350 cowbirds and a few robins entered the roost after the greatest flight of grackles. At 5:30 the cowbirds were gathered in the trees north of the campus awaiting an opportunity to steal into the northernmost trees of the roost. They were seen on the roof of Council Hall and the First Congregational Church some minutes before the first grackles put in an appearance. On succeeding days the cowbirds came first to the roof of Council Hall, where they remained for half an hour before perching in the trees south of the building preparatory to their plunge into the grackle roost.

The first large flock of grackles was sighted a little west of south coming over a considerable woods a mile and a half away. Their habit of flying so low made it impossible to see them farther away because they were hidden by the woods. From here they came in almost a direct line to the south end of Professor street, then turned directly up that street to the intersection of Elm street, then passed east of the Second Congregational Church and the Chapel to the campus. Many of the birds stopped in the trees north of the Chapel and in those south of Spear Library, while more flew directly to the roost or to the trees west of it. During the summer the direction of the flight varied somewhat, although it was southerly at all times. The birds invariably turned eastward to pass east of the church and Chapel building at night, and never neglected to pass east of them in the morning, even though their final direction was decidedly westerly. It is difficult to resist the conclusion that the tall steeple of the Second Church served the grackles as a landmark on their evening return, but why they should always pass on the east side of it is not clear. It may be that the large buildings on the west side of Professor street caused the eastward movement. During the previous years the birds had not followed this route, nor had they during the early part of 1896, so it could not have been a fixed habit. It was only after the birds had begun to form into large flocks that they followed any definite line of flight at all.

As we have seen, during May, June and the early part of July the birds had not gathered into any considerable flocks, either at their morning departure or evening arrival; but the gregarious instinct asserted itself more and more as the season advanced and the necessity for a wider range of feeding ground increased. Early in the season the birds were not yet free from the care of the young, and so were naturally busied in different places by different things. The numerous small flocks

gradually joined together until there was but the one huge flock with few stragglers.

There were no wet days during the summer, but several thunder storms swept over the region early in the evening at the gathering time of the grackles. The actions of the grackles at such times were different enough from what we have already seen to warrant particular mention.

On September 5, conditions were favorable for the formation of local thunder storms. Early in the afternoon a storm began to form in the west, which moved eastward as it increased in magnitude. The sun was not obscured until about four o'clock, but the mutterings of thunder gave promise of a considerable storm. At 5:00, the storm cloud had spread well over the heavens, and at 5:04, a light sprinkle began, which gradually increased to a brisk rain. At 5:10, 500 grackles came swiftly in from the south, flying low and settling into the foliage at once. 5:15, steady rain with a light south-west breeze. A flock of about 2000 grackles arrived from the south at several hundred feet elevation ; they went at once to the roost and disappeared in the foliage. 5:16, harder rain with more wind. A flock of about 3500 grackles appeared high up over the roost. They dropped down with half closed wings and at once disappeared. 5:20, the storm burst with sheets of rain and a westerly gale which tore the leaves from the trees and must have drenched the foliage with the first blast of the storm, which had spent itself in five minutes. During this time there was no sign of the grackles. At intervals of five minutes after the passage of the storm heavy showers followed until 5:45. Between showers the birds shifted about some, but did not show themselves. Theirs must have been a wet berth on that night. All arrived noiseless, and uttered scarcely a sound afterwards, even when shifting about.

The falling rain made it impossible to see the birds until they were nearly ready to descend into the trees, but the direction of their flight seemed to be the same as on other days. The last birds arrived at 5:16, four minutes before the storm burst in earnest, and forty-five minutes earlier than the last arrivals on September 7. Normally the return flight would hardly have begun until after the time that the storm had passed over. The weather after the storm was more suitable for flight than when the birds came in, and there was ample time for them to have reached the roost before dark had they waited for the storm to pass, but they could not risk being kept away from their accustomed sleeping place. Whenever a storm threatened during the aftermoon, unless it passed over before four o'clock, the grackles left their feeding grounds in time to reach the roost before the storm burst upon it.

Cloudy days had the effect of retarding the morning departure and hastening the evening arrival. The difference between the time of departure and arrival on cloudy and clear days was coincident with the difference in the amount of daylight of two such days. My daily notes of the time of departure and arrival indicate a close correspondence with the varying length of the days from the time the birds were first seen until the roost was deserted, allowance being made, of course, for the effect of cloudy days and thunder storms.

There was no diminution in the number occupying the roost up to September 21, but not one bird appeared at the old stand on the two succeeding days. On the 24th less than a hundred occupied the trees during the night, and none visited it afterwards. This sudden failure to report promptly was undoubtedly due to the persistent persecution of would-be hunters of tender years, who made it a business to shoot into the flock as it passed over the outskirts of the village. While watching the incoming flock on September 10, a fusillade of shots caused the approaching flock to rise suddenly several hundred feet, turn abruptly back and divide, one part making a wide detour to the west and coming in from that direction; the other going back fully a mile and rising to a thousand feet elevation before venturing back again. This altitude was maintained until the flock was nearly above the roost, when the birds came dropping down like leaves. For about ten days following this serious disturbance the birds came in from a different direction—more southwesterly—avoiding the dangerous region. On September 21 they again came in from the south over the old route for the last time.

It was feared (hoped by some) that this experience would cause the grackles to abandon the old roost permanently, but on June 3, 1897, the trees were occupied for the first time by about fifty birds. The number has gradually increased since, with fair promise of as large a gathering as usual before the close of the season. At the present writing they have not begun to flock, so the direction of their feeding grounds cannot be determined.* The tendency heretofore to a southern direction may

*Since the above was written the grackles have formed into considerable flocks, and the direction of their feeding grounds has been determined, which is a little east of north. Their line of flight from the country passes a little east of the east end of Maple street to a large elm tree, where the majority of the birds rest for a few minutes before flying directly to the roost. It is difficult to see them immediately before they reach the roost, because they descend almost to the ground at the intersection of Lorain and North Main streets, then fly upward to the tree tops. It would be interesting to know what effect, if any, this change in the direction of the Oberlin birds has upon occupants of the other roosts in the county. That would require the remainder of the roosting season to determine.

be at least suggested by mention of three other roosts in the county.

The Vermillion roost, which is fourteen miles north-westward, consisted of about 3000 birds, nearly all of which came from the east or south-east in 1896. It is situated on the shore of lake Erie, thus making a northerly feeding ground impossible. Birds belonging to this roost were traced as far east as directly north of Oberlin, and five miles inland.

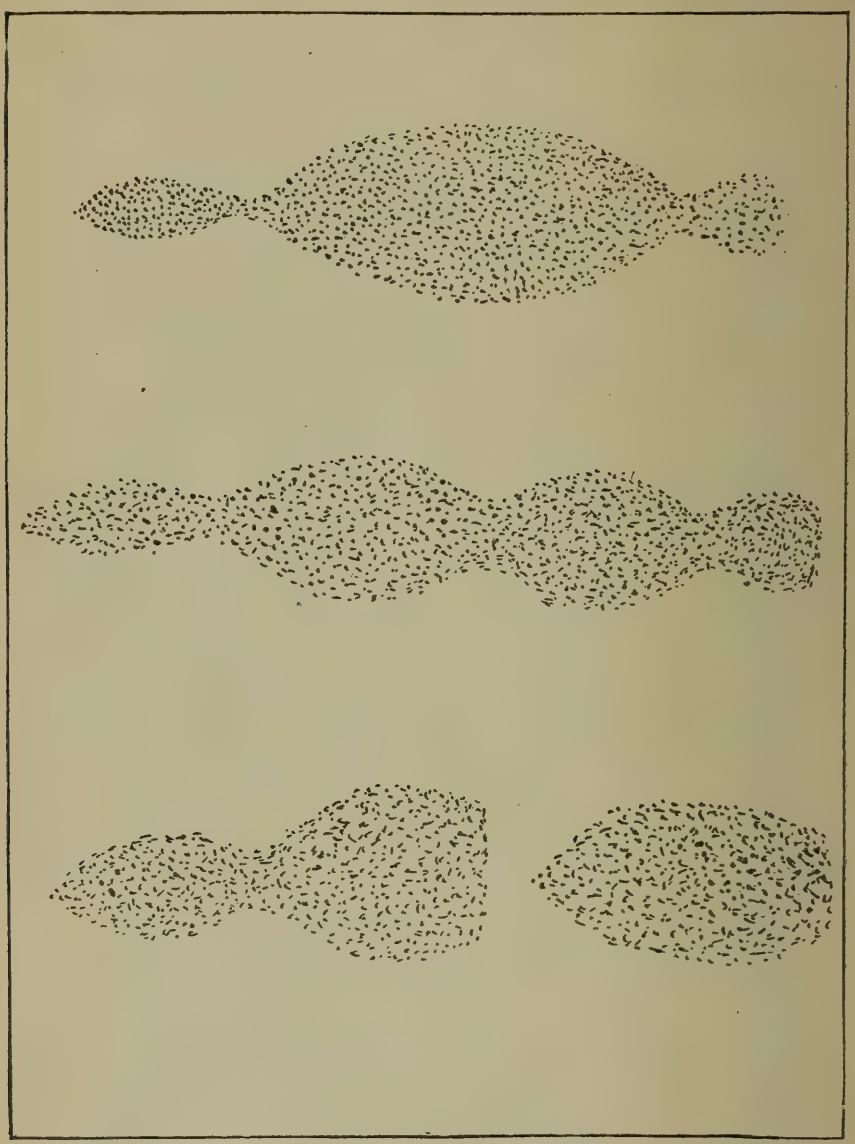
The Elyria roost, nine miles north-eastward, is apparently a larger one than the Oberlin roost, the birds of which feed in a south-easterly direction. A small proportion range northward and westward.

The Wellington roost, eight miles directly south, is said to be fully as large as the one on the Oberlin campus. I am told that the most of the birds inhabiting this one feed southward. For information relating to this and the Elyria roost I am largely indebted to residents of the two villages.

The reason why the birds of the Oberlin roost foraged in a south-westerly direction is thus made clear. The foraging grounds in other directions were occupied by the inhabitants of the other roosts. Several times it was noticed that when a strong wind blew from the east or north more birds than usual came from that direction ; and vise versa, when the wind blew strong form the south or west, almost no birds came from the opposite direction. This suggests that when the wind is favorable for them to do so, such individuals of the other roosts as wander away in the direction of this one, come to it rather than breast the strong wind to return to their own. And it is undoubtedly true that an unfavorable wind caused some birds belonging to this roost to seek the shelter of one of the others. Thus there would be a slight variation from day to day in the number at each of the roosts. Strong north winds were of rare occurrence, but when they did blow, there was no apparent effect upon the incoming host from the south. It was too large and too well organized to be turned back by weather.

After the grackle host had formed into one huge flock, the form of that flock, as it passed over the fields and woods on its return to the roost or to its feeding grounds, was an interesting study. It could not be seen to advantage from Spear Library or near the roost, because the birds were headed that way ; but at the proper time of day almost any station in the fields south of Oberlin was sure to give one an excellent side view of the passing flock. The accompanying representation of the varied appearance of the flock on different days as well as at different stages of the flight on the same day, will give a fairly accurate idea of the average forms assumed. At the beginning of the return or departing flight a form similar to the upper figure was assumed, and the end of it, either at the feeding

grounds or at the roost, as the case might be, was more like the middle figure, because the flock had the habit of resting on the installment plan



FORMS ASSUMED BY THE GRACKLE FLOCKS, SEPTEMBER, 1896.

when passing to and from the roost, and so would become more and more drawn out and broken up as it proceeded. The van-guard would stop in some tree-top and rest until the others had passed over, when it

rose and formed the rear-guard. In this way the whole flock secured a short breathing time, part by part. Occasionally the flock became more broken up and extended from the van to the rear than represented in either of the figures. Rarely two flocks were formed during the flight.

We have seen that the advancing season brought certain changes in the habits of the birds resorting to the roost at night. These changes had several causes, chief among which was the food supply. All young birds subsisted upon insects for some days after occupying the roost for the first time. As they grew older the diet of both young and old was changed to blackberries, upon which the birds seemed to subsist while they were to be found in sufficient abundance. A green corn diet followed the blackberry diet, and corn formed the staple of grackle food as long as the birds inhabited the trees. Grasshoppers were everywhere abundant during the entire summer, inviting the grackles to a hearty and easily obtained meal where ever they might go ; but I was unable to find any grasshopper or other insect remains in the droppings after the birds began eating blackberries. The damage inflicted upon the green corn crop must have been considerable, much of which, I suspect, was laid at the door of the crow, since flocks of two or three hundred crows were seen every day in the south-western part of the county. No doubt the crows ate their full share of green corn, but the grackles were many times more numerous and literally covered some corn fields. Twice I surprised them at a hasty evening lunch while they were resting on their way to the roost. None of the corn fields in the vicinity of Oberlin were molested during the latter part of July, and all of August and September. They showed their cunning by passing the night miles from the scene of their daylight depredations. I assume that the flock does not disperse during the day but forages as a flock, because the farmers and others who ought to know tell me of huge flocks of "blackbirds" seen at all times of the day, and because such flocks were every day occurrences during the summer at my old home in central Iowa, where the conditions are the same as here in Ohio. Earlier in the season, while they were foraging for the young, they were found singly or in small troops.

Another cause for the change in habits as the season advanced, one whose influence was very marked, was the summer molt. I say "summer molt" because the first feathers were shed on June 14, and the last feathers were fully renewed early in October. Feathers were collected every day during the summer in order to determine, if possible, the exact order in which the flight feathers were renewed, and also to determine the length of time occupied in molting. The birds were also carefully watched from day to day to further determine the progress of the molt.

A more exact method would have been to secure birds and study the plumage, but this would have thwarted study of the roosting habits by driving the birds away. It was the roosting habits and not the molt that I wished to study at that time ; the other could wait. The first feathers found were the innermost primary and outermost greater wing-covert, both at the same time. The contour feathers could not be definitely located, and so were passed by. The primaries were molted in regular order from the innermost outward and the greater coverts from the outermost inward, followed by the secondaries from the outermost inward, except that many secondaries were found before any of the first and second primaries. This is practically the order determined by Mr. Witmer Stone for the genus *Quiscalus*.* But the subject of molting will be fully discussed in a subsequent BULLETIN, and so need not be further treated here. In 1894 and 1895 the desertion of the roost was coincident with the completion of the molt. It would probably have proved the same in 1896 if the birds had not been driven away before the usual time. The beginning of the molt so soon after occupying the roost and the desertion of the roost as soon as the molt is completed make an irresistable argument in favor of the supposition that the molt is directly responible for the formation of the roost. This is suggested by Mr. F. E. L. Beal in his pamphlet, *Some Common Birds in Their Relation to Agriculture*, page 25, in which he says : "After July it [the Bronzed Grackle] becomes very rare, or entirely disappears, owing to the fact that it collects in large flocks and retires to some quiet place, where food is abundant and where it can remain undisturbed during the molting season, but in the latter days of August and throughout September it usually reappears in immense numbers before moving south." It is true that the Oberlin grackles are not nearly so much in evidence while molting as while nesting, and are rather more abundant after dispersing from the summer roost, but their choice for roosting is anything but a quiet place. Instead of feeding near their roosting place, they wander miles away before ceasing their flight. A better designation for our grackles would be, "Locally rare or absent during the molting season," for surely they are numerous enough in many places at certain times of the day.

While there are many things in common between the grackle's and the robin's roosting habits, there are also some differences. Mr. Brewster's excellent account of the "Summer Robin Roosts" near Cambridge, Mass., already referred to, and my own notes on this Oberlin Summer Grackle Roost form the basis for this passing comparison.

**The Molting of Birds with Special Reference to the Plumage of the Smaller Land Birds of Eastern North America.* Witmer Stone.

Mr. Brewster found the robin roosting from the second week in June (June 11) until the end of the first week in October. Grackles were found at the Oberlin roost from May 16 until the end of the second week in October—a difference of nearly four weeks between the two species. Mr. Brewster describes the woods occupied by the robins as a point toward which the host converged from all directions, singly or in small companies. The grackles approached their roost from one direction only, and arrived in larger or smaller flocks. The feeding habits of the robin are therefore different from those of the grackle. Sometimes the robins were almost equalled in numbers by other species which shared the roost with them. But the grackles far outnumbered all the other species seeking the protection of their roost. The fact that many robins rear two broods in a season and that the grackles rarely if ever rear more than one in this locality, would of necessity make some difference in the roosting habits of the two species. So wide a range in the time of nesting among the different grackle individuals—April 20 to June 10—prolongs the molting season and occupancy of the roost beyond that of the robin, even with his two broods to rear. If the molted feathers, which were carefully gathered daily, can give accurate information, it is certain that the period of molting is at least a week shorter with the robin than with the grackle. The period of incubation is a day or two shorter, and the young leave the nest earlier, how much I have been unable to determine accurately. In a few isolated cases the young robins have remained in the nest fifteen days after hatching, and the young grackles twenty days. But there is considerable variation with both species. The first robin's nest is completed about a week before the first grackle's nest. Thus the robin is more expeditious in all respects. Mr. Brewster does not mention the molting of the robin while it occupies the roost, but from the number of first primaries found under the trees I am strongly inclined to think that all of the robins which occupied this roost in 1896 performed the entire molt during the roosting season.

After the roost was deserted small companies of grackles were seen in the country about Oberlin almost every day until their departure for the south—November 7, 1895, October 31, 1896. During the interval no evidence of a roost could be detected, and it seems probable that none of a general nature existed in this region. On more than one occasion a small flock was seen to enter a convenient small woods in the evening and passed the night there. Lines of flight would certainly have been discovered if any had existed. It is not impossible that the desertion of the roost on September 22, 1896, was the signal of departure southward for those birds, but it is improbable. The ragged condition of the majority

of the birds would seem unfavorable for a long journey, but, as we know, not impossible.

The study of this roost has shown that during courtship and nesting, each occupying about two weeks under normal conditions, none of the grackles flock together to pass the night, whatever they may have done previously; but as soon as incubation has well begun the old males seek the shelter of some convenient grove and pass the night there with others of their kind. As soon as the most forward young are able to fly they are escorted to the common roost by the old male, or if the whole brood should develop at the same time, by both parents; and where there is any marked difference in the development of the young of the same brood, the later ones, accompanied by the old female, bring up the rear. The young are fed for some days after they begin to roost with the old ones. All of the birds eat fruit while it is sufficiently abundant, then green and later ripening corn until the roost is deserted. The complete summer molt is performed while the roost is occupied. The fruit and green corn diet is coincident with the molting season, either from necessity or from choice. In general, the birds depart from the roost with the rising sun, and return to it at sunset. Singing and calling begin with the break of day, and continue until the birds depart for their feeding grounds. At night there is comparatively little singing, and all noise and shifting about cease as darkness falls. Early in the season the birds arrive and depart independent of each other, but with the advancing summer flocking increases, until finally all move as one individual.

During his sojourn in the north the grackle has a period distinctly beneficial to agriculture—the breeding season—and a period distinctly injurious to agriculture—the roosting season. The little injury done by robbing other birds' nests during the beneficial season is not worth taking into account. It is not probable that the berries eaten are any loss to anybody, since there are no complaints from fruit growers against this species. Hence, the only real damage done by the grackles is when they feed upon growing grain and upon that which has not been put out of their reach. This reduces the injurious season to a small fraction of the whole year, and is far too little damage done for the death sentence to be pronounced as a penalty.

Scarcely a beginning has been made in the study of this roosting habit. Before we can understand it we need to know more about the influence of migration, nesting, molting, food and food supply, disposition, enemies, and the role of man upon the life of the grackle. In short, we need to know far more about the grackle than we do now. His is an interesting character which will amply repay persistent study.

KEAS (PARROTS) OF NEW ZEALAND, ATTACKING SHEEP.

(One of the many smaller pictures in *The Osprey*.)

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OBERLIN, OHIO.
September 30, 1897.

ARRIVAL OF WHIPPOORWILL AND PURPLE MARTIN IN SPRING.

Information of the time when these two species arrive in spring was solicited in BULLETIN 14. Only a very few localities were heard from, but the presentation of records from these few will aid materially in any further study of the movements of these birds.

The record of Mr. Frank L. Burns, of Berwyn, Pa., is as follows: For Purple Martin, April 4, 1889; April 22, 1890; June 2, 1896; April 23, 1897. At West Chester, Pa., March 24, 1897. Mr. Burns states that this last is "*very early*." For Whippoorwill, Mr. Burns has no spring records.

Mr. James Savage, Buffalo, N. Y., sends the following record: For Purple Martin, April 16, 1894; April 23, 1896; May 19, 1897. At Ann Arbor, Mich., April 15, 1890. For Whippoorwill, May 1, 1894; May 13, 1897.

At Oberlin, Ohio, I have the following records: For Purple Martin, April 8, 1896; March 31, 1897. The arrival of Whippoorwill has not been observed. It is not common.

Mr. J. N. Clark, Meridian, Wis., sends the following notes: For Purple Martin, May 18 is the earliest recorded arrival, but since it is rare in this locality it may come earlier. For Whippoorwill, April 23, 1891 is the earliest date, April 26, 1887.

My Grinnell, Iowa, records are as follows: For Purple Martin, April 10, 1885; April 13, 1886; April 3, 1887; April 3, 1888; April 1, 1889; April 8, 1890. For Whippoorwill, April 23, 1885; April 28, 1886; April 14, 1887; April 17, 1888; April 19, 1889; April 23, 1890.

Mr. John W. Daniel, Jr., Lynchburg, Va., sends the following records for the Whippoorwill: April 2, 1896; March 26, 1897.

Mr. O. M. Meyncke, records one Whippoorwill on March 2, 1897, at Brookville, Ind., in *The Osprey* for May, 1897, p. 123.

My experiences with both species at Grinnell, Iowa, where they are far more common than here in northern Ohio, led me to believe that they were greatly influenced by weather. The Martins came with the first genuine signs of spring, and the Whippoorwill's first note came in with the perfume of opening blossoms. But with the Martins it is necessary

to be particularly careful, for the first few days, or even weeks it may be rarely, they stay closely at home in the boxes or houses where they are first seen. The present season the first one appeared promptly at noon on March 31, taking possession of the house at once, where he rested the remainder of the day, and was not seen a block away during the next two weeks or longer. Severe weather late in April, and weather unfavorable for vegetation and insect life during all of April resulted in the starvation of one of the company. No other Martins were seen nor reported until well into May. Hence, keep watch of your martin boxes if you would make early records.

In this region the Whippoorwill is restricted to certain localities several miles from Oberlin, and hence has not been recorded until some days or even weeks after its arrival, Twice only have I heard its note in the woods near Oberlin, and then only one day in an entire season.

LYNDS JONES, *Oberlin, Ohio.*

GENERAL NOTES.

SOME WARBLERS OF ELDORADO COUNTY, CALIFORNIA.—A hint of the physical features of the county is necessary to a proper understanding of its Warbler inhabitants. The altitude is about 3750 feet above the ocean. The country for miles around is covered with tall furs, pines, cedars, spruces, with here and there oaks and thick brush, called "deer brush." In various places under the trees there are large patches of a species of wild rose, called "mountain misery."

HERMIT WARBLER, *Dendroica occidentalis.*—During my stay from the 7th to the 14 of Jnly, 1897, I saw but six Hermit Warblers. A nest with four young was found in a cedar tree about twelve feet up. All but the one female belonging to this nest seemed to be males. They seemed to prefer the tops of tall trees where they searched through the foliage for insects, singing all the time.

CALAVERAS WARBLER, *Helminthophila rubricapilla gutturalis.*—These were quite common, spending their time in the "deer brush" and "mountain misery." No nests were found, but several broods of young were noticed. They keep well out of sight and therefore are easily overlooked.

BLACK-THROATED GRAY WARBLER, *Dendroica nigrescens.*—One of the commonest Warblers, both in brush and high trees. A pleasant song-

ster. I saw several broods of young, and watched the old birds feed them.

MACGILLIVRAY'S WARBLER, *Geothlypis macgillivrayi.*—It was quite common in the "deer brush," where it builds its nest. One nest was found, and I saw some young nearly fully grown. There seems to be no difference in the habits of the individuals here and those in Sonoma.

YELLOW WARBLER, *Dendroica aestiva.*—I saw a few in the "deer brush." One nest with fresh eggs and one with three young and one egg was seen. This is probably the rarest warbler in the hills.

AUDUBON'S WARBLER, *Dendroica auduboni.*—It was fairly common, keeping well up in the trees, where it frequently uttered its peculiar note. A brood of young was seen, which the old birds were feeding at that time.

PILEOLATED WARBLER, *Sylvania pusilla pileolata.*—On September 20, 1895, I saw about twenty individuals of this species in the trees (alders, laurels, etc.) along a mountain stream. They were in low trees, but went up about twenty-five feet at times. All were apparently young of the year, as but one had the black crown. They were searching around through the trees after insects. On September 26, I saw two along the same stream, but in the valley about a half mile from where the others were seen a week before. One which was shot proved to be a bird of the year; the colors of the other one indicated that it was an old bird. They acted like the Yellow Warbler. The above noted instances are the only times I have met this bird. HENRY W. CARRIGER, *Sonoma, Calif.*

NOTES FROM NORTH GREENFIELD, WIS.—CLIFF SWALLOWS.—Near the house where I am spending my vacation is a barn whose eaves shelter the nests of about thirty pairs of Cliff Swallows. The protection of this colony, by the way, from the persecution of the English Sparrow has been accomplished only by frequent use of the shot gun and constant vigilance; nearly one hundred of the little pests having been shot so far this season. On Sunday afternoon, June 11, about seven o'clock, a thunder shower, accompanied by a heavy wind, came up from the northwest. As the rain began to fall the Swallows left their nests and flew about in an erratic manner, apparently much disturbed. In a few minutes, however, with one accord they turned towards a large elm tree and disappeared in the foliage of the upper branches, where they remained for several minutes. This is the first time that I have known Swallows to resort to trees.

AN ALBINO CROW.—A large white bird, evidently an albino Crow, was

seen by my brother the past spring at North Greenfield. As observed at some distance, the bird seemed pure white in color. It was with a flock of Crows of normal color and behaved like any ordinary Crow. It did not seem to receive any unusual attention from its companions.

Red-headed Woodpecker and Kingbirds.—A pair of Kingbirds built a nest in a white oak tree, near the house, in June. About the time of its completion, an ill-tempered Red-headed Woodpecker came along and proceeded to tear up the nest in spite of vigorous attempts at remonstrance by its owners. Several times the birds came to close quarters and indulged in a rough and tumble fight.

R. M. Strong. *North Greenfield, Wis.*

Notes from Oberlin, Ohio.—Of the 180 odd species of birds which an active ornithologist might feel reasonably confident of finding in Lorain County during a spring, summer and early autumn, only 149 have been seen by the writer thus far during 1897. Of the thirty odd unrecorded species at least two must have failed to appear in the county. These are the Dickcissel (*Spiza americana*) and Henslow's Sparrow (*Ammodramus henslowii*). They were diligently searched for in all places without success. Many of the others escaped notice because of lack of opportunity to search for them where and when they could be found. Of the 149 actually recorded, at least twenty-six appeared in a more or less unusual role. Since there was a marked increase in the numbers of twenty-two species, and just as marked a decrease in the numbers of but two, it is fair to conclude that the season has been favorable for the birds. The records of many of these twenty-two species is so interesting that they deserve special mention :

Great Blue Heron, *Ardea herodias.*—It has been not only more common than usual, especially on the lake shore, where a small flock was seen for weeks during the early autumn, but one settled in a pasture within the village corporation. His vain efforts to balance himself upon the top wire of a fence were tantalizingly ludicrous.

Bob-white, *Colinus virginianus.*—It is gratifying to notice that this species is decidedly on the increase. A covey of some fifteen was startled from an evergreen in my neighbor's front yard, on a Sunday morning.

Turkey Vulture, *Cathartes aura.*—Seen almost every day during the spring and summer.

Long-eared Owl, *Asio wilsonianus.*—This is the first year that it has ever approached being common.

YELLOW-BELLIED WOODPECKER, *Sphyrapicus varius*.—The first season it has been actually found nesting.

RED-BELLIED WOODPECKER, *Melanerpes carolinus*.—A very noticeable increase in numbers and consequent greater boldness. During September one individual ventured upon the college campus several times. His call sounded strangely on the busy street.

BOBOLINK, *Dolichonyx oryzivorus*.—A decided decrease in numbers, probably due to the conversion of so many pastures and meadows into cornfields. It seemed to be more common after the molt.

BALTIMORE ORIOLE, *Icterus galbula*.—It has been universally remarked that the "Orioles" were never so numerous before. "Abundant" would not overestimate the numbers.

AMERICAN CROSSBILL, *Loxia curvirostra minor*.—Not only far more numerous than ever before, but remained much later also. There is a suspicion that broods were raised in the county.

AMERICAN GOLDFINCH, *Spinus tristis*.—Certainly abundant. One could not get beyond the reach of the plaintively fretful call note.

CARDINAL, *Cardinalis cardinalis*.—In nearly every small woods, and common along the rivers. A noticeable increase.

CEDAR WAXWING, *Ampelis cedrorum*.—Never so many before. Nested plentifully in the village.

OVENBIRD, *Seiurus aurocapillus*.—Abounded in the woods. Unmercifully imposed upon by the Cowbird. Last year (1896) the Ovenbird was not at all common.

YELLOW-BREASTED CHAT, *Icteria virens*.—The increase over last year was fully 100 per cent., judging from the numbers observed.

BARN SWALLOW, *Petrochelidon lunifrons*.—The birds came into town, two pairs nesting in my neighbor's barn. They were everywhere in evidence.

BROWN CREEPER, *Certhia familiaris americana*.—Common during the spring migration. The increase seemed to be fully 300 per cent. None could have spent the summer here.

PURPLE MARTIN, *Progne subis*.—While not common outside of town, it was not unusual to see birds flying over the country. In former years it has been confined to the towns.

BLUE-GRAY GNATCATCHER, *Polioptila cærulea*.—Never more common before. This summer every woods boasted several pairs. Nesting in all woods.

WILSON'S THRUSH, *Turdus fuscescens*.—Common and nesting in the deeper woods. Singing well into July.

BLUEBIRD. *Sialia sialis.*—Nearly equal to its former numbers, but not singing.

GREEN-CRESTED FLYCATHER, *Empidonax virescens.*—Abundant in all woods, and nesting plentifully. Its note was one of the ceaseless sounds of the woods. LYNDS JONES, *Oberlin, Ohio.*

RUBY-THROATED HUMMING-BIRD BREEDING IN THE SAME LOCATION FOR TEN CONSECUTIVE YEARS.—On May 29, 1897, I collected a nest and two fresh eggs of the little Ruby-throat from a pair of birds which have annually nested in the same locality. The bird remained on the nest while I severed the branch on which it was placed. The locality in which this pair of birds have nested so long, is a small group of sugar maples near a brook in a ravine on the border of a large wood. The first time I found them nesting here was May 29, 1897, when I took a nest and two fresh eggs from a neighboring tree. On the same branch, and only six inches away, was an old nest, showing the birds had used the locality in previous years. J. WARREN JACOBS, *Waynesburg, Pa.*

ABUNDANCE OF DENDROICA IN CALIFORNIA.—For about a week prior to January 21, 1897, I noticed a number of Warblers along a creek that ran near a road, over which I passed daily. They were very active and could be heard chirping as they searched for insects in the trees and on the ground. I thought they were Audubon's, but on the 22nd I thought the note sounded different from Audubon's, so I returned earlier than usual (about 4:50 P. M.) and found them quite common, and they allowed me to approach within from six to eleven feet, when to my surprise I saw they were Myrtle. The creek was quite low and they would sit on the rocks in water or search along the bank. On the 23rd I found about fifty and shot one. On the 2nd of February I shot two more, and they appeared to be old birds, though I could not say for sure. (One of the birds was named by Mr. R. Ridgway of the Smithsonian.) I had not met the Myrtle at any place except along the creek, but after February nearly all the birds I noticed seemed to have the white throat patch. I could not see any difference between this bird and Audubon's except there seemed to be a slight difference in the note, and in the latter part of February I could generally tell by note whether it was Audubon's or Myrtle. A small note-book in which I kept my rough notes after March was lost, so all I have is as follows: February 6, about twenty in oaks on hills. February 14, more common than Audubon's. March 7, about equally divided. March 20, still common in hills. April 4, common as Audubon's. Al-

though this species may have been here previously I never noted it till this year. It was common in places and, roughly speaking, I must have seen four hundred. I counted forty along the creek one evening. I think this bird breeds in California, for I believe some young were taken in El Dorado or Placer County in the high Sierras.

H. W. CARRIGER, *Sonoma, Calif.*

On June 8, 1896, I flushed a Mourning Dove from a nest seven feet from the ground on a grape vine which was growing over a small dead willow. It was composed of dry sticks, weed stalks, grass and a cottonwood leaf, and contained three eggs, Two of these were heavily incubated while the other was perfectly fresh. The above notes were taken on Bear Creek about ten miles from Denver, Col.

A. S. PEARSE, *Lincoln, Neb.*

THE SWALLOWS.

Work is progressing rapidly on the Swallow report. The season has closed in the north, but further south the swallows still remain. Work up your notes while the matter is fresh in your minds. I wish all matter in before November 1, that I may have time to arrange it. As a last appeal I ask you as a friend and fellow worker to help me. It is impossible for me to call on you personally; in fact life is too short to visit all the ornithologists even had I the means. Please sit right down and tell me all you know about the Swallows. Don't use postals.

Ask all your friends to tell you something of the Swallows. What species have they observed? etc. I append a list of questions to aid you. What species have you ever observed? State places of observation if other than your present residence. What species breed? About what number, and the location of nest? When arrive and depart? How long incubating and rearing young? Number, color and size of eggs? When, where and how fed, and of what does food consist? By this I mean do they feed at all hours and all seasons in the same manner or differently. What can you tell me in regard to the nesting boxes for White-bellied Swallow and Purple Martin? How should they be constructed? You should copy from others giving credit to the author each time. I cannot consult all the old magazines, so I ask you to give definite reference to any thing you think will interest me. If you cannot answer more than one question do that at once.

My corresponcence has increased so rapidly that it will be impossible for me to reply to all as speedily as I should like ; but remember that I shall acknowledge all in the report.

STEPHEN J. ADAMS, *Cornish, Me.*

EDITORIAL.

The news of Major Chas. E. Bendire's death, whose work was thus so prematurely closed, brought with it not only a keen sense of the loss of the true scientist, but as well the almost certainty that his "Life Histories" would never be completed. We are gratified to see that the scientific organizations of the country are bending every effort to insure the continuance of this great work by some competent man. Toward this end we would beg to submit the following resolutions :

"Whereas, the death of Major Charles E. Bendire leaves his great work, the "Life Histories of North American Birds," scarcely more than begun, and

"Whereas, the ornithologists of the United States anticipate that the work will never be completed unless concerted interest be shown by scientists and scientific organizations, be it

"*Resolved*, that the Wilson Ornithological Chapter of the Agassiz Association hereby expresses its keen interest in the completion of this work by some competent oologist, and earnestly urges that those in authority in the Smithsonian Institute do all in their power to further the completion of this great work, and be it further

"*Resolved*, that a copy of these resolutions be forwarded to the officers of the U. S. National Museum."

We regret the discontinuance of our esteemed contemporary, *The Nidologist*. Mr. Taylor's earnest efforts deserved more lasting success and his excellent magazine will be universally missed by bird students. Unexpired subscriptions will be filled by *The Popular Science News*.

The present number is behind time from a lack of copy, and for no other reason. This is the first time such a thing has happened, and we trust it will be the determination of every member of the Chapter that it will be the last time. In many parts of the country conditions have been favorable for some strange freaks among the birds, some of which must have come within the range of your eyes. You will confer a favor upon all ornithologists by submitting such things for publication.

In another place members will find the announcement for the annual election of officers for the coming year, and a list of names presented for membership. Let it be the duty of every active member to cast his vote in this election. The encouragement you will thus give to the officers will result in great good to the Chapter.

There is great need of a larger list of associate members. If you have a friend, acquaintance or correspondent who is not now a member, but whose interest in the birds is more than transient, invite him to become a member. We need his help, and we may be of service to him.

The roosting habits of birds deserve more notice in print than they have received. It must be true that many birds have been noticed going to roost, or have been flushed from their roosting places at twilight or during the night, perchance even seen to leave their nocturnal retreat at dawn, yet how few even casual references can be found in current literature. Can we not have a symposium of roosting habits in which each member shall briefly give whatever he may have noticed, even casually, about this subject? The editor would be delighted to receive brief notes about the roosting habits of any and all species. Notes like these are interesting: "A company of fifty or more Meadowlarks was seen to enter a clover meadow and disappear under the clover, at twilight." "Frightened a dozen Flickers from a thicket of prickley ash, half an hour after sunset." "Watched a solitary Tufted Tit go to bed under a huge leaf." Such notes show what the birds do at night. Will you not send the editor at once a few such short notes? They may be longer if you can spare the time to make them so.

One of the most encouraging "signs of the times" is the general awakening of the public to the pleasures and profits of bird study. Is it because that interloper, the English Sparrow, everywhere and at all times obtrudes himself upon the people's notice, or is it the intrinsic value of the birds in leading us to see more in life than material wealth? With only a little knowledge of nature, how much more the short walk for exercise, or the run into the country, or the daily drive, means to us and brings to us. Even though we may never wish to touch the deeper problems of the bird's life, we are led to an appreciation of all nature through them that will make our lives fuller and more pleasant. Blind eyes and deaf ears, among a race as active as ours in the ways of trade, may well be made to see and hear what there is for them in the world's wide range of natural objects which cannot be turned into gold, but which will lift the race to a higher plane of living and striving.

ELECTION OF OFFICERS FOR 1898.

The annual election of officers begins November 20 and ends December 5. The officers to be elected are : President, Vice-President, Secretary, Treasurer and three members of the Executive Council. Very few nominations have been made, hence the list is incomplete. Members are always at liberty to vote for whomsoever they please, even when the nominations are full.

Mr. Frank L. Burns, Berwyn, Pa., has been appointed Judge of Elections, and all ballots should be sent to him. Our Constitution provides that ballots must reach the Judge of Elections by December 5, in order to be counted.

Only active members are privileged to vote, but those in arrears for assessments are denied the privilege, unless their assessments reach the treasurer before November 20.

The following nominations have been made :

For President.—Reuben M. Strong, Lake Forest, Ill.

For Vice-President—N. Hollister, Delavan, Wis.

For Secretary.—Walton I. Mitchell, St. Paul, Minn. ; W. L. Dawson, Oberlin, Ohio.

For Treasurer.—Lynds Jones, Oberlin, Ohio.

For Executive Council.—John H. Sage, H. C. Oberholser, J. Warren Jacobs, H. C. Higgins, W. A. Oldfield, J. E. Law.

ELECTION OF NEW MEMBERS.

The following names are here proposed for Active membership : John W. Daniel, Lynchburg, Va. ; Geo. W. Dixon, Watertown, S. Dak. ; A. C. Parker, Box 6, White Plains, N. Y. ; A. H. Howell, Biological Survey, Department of Agriculture, Washington, D. C. In accordance with the Constitution, proposed members will be considered elected unless there are adverse votes.

CHANGES OF ADDRESS.

It is very important that changes of address, or any errors in the present mailing list, should be attended to before the close of the present year. Unless you give notice to the contrary, your name and address

will be printed in the next list of members as they appear on the wrapper of this BULLETIN.

President Strong's address will be Lake Forest, Ill., until further notice.

PUBLICATIONS RECEIVED.

The "special" nature of BULLETIN No. 15, prevented the acknowledgement of publications in that number, hence the present list is both late and longer than usual.

The Blue Jay and Its Food, by F. E. L. Beal, Assistant Biologist, U. S. Department of Agriculture. [Reprint from the Year-book of the Department of Agriculture for 1896, pp. 197 to 206 inclusive, with three cuts in the text.] The evidence brought forth by the careful investigations conducted by Professor Beal may be summed up in his closing sentence. "In fact, the examination of nearly 300 stomachs shows that the blue jay certainly does far more good than harm."

Bulletins Nos. 84, 85, 86, and 79, of the Alabama Agricultural Experiment Station, of the Agricultural and Mechanical College, Auburn. Valuable contributions to Horticulture and related subjects, by officials of the station.

Bulletin No. 20, Department of Agriculture, Kansas State Agricultural College, Manhattan, Kan. A compilation of experiments with wheat.

Bulletins No. 80, 81, and 82, Ohio Agricultural Experiment Station, Wooster, Ohio. Valuable contributions to Horticulture and related subjects, by officials of the station.

Birds, Vol. II., Nos. 1, 2, and 3, July, August, and September, 1897. It could have no greater praise than mention of its immense and constantly increasing circulation. Our constant surprise is that there are not more inferior pictures, realizing, as we do, that perfect subjects for illustrations are not always obtainable. The species selected for representation in the September number are among the more difficult ones. Here we notice that the chief defect is a lack of light in the eye, which is also more or less in evidence in previous plates. A steady improvement is evident throughout the magazine, and we have only hearty words of praise for the good work it is doing in putting the birds before the eyes of an appreciative public whose need of just such a magazine is made clear by their eagerness to know the birds through its pages.

The Auk, Vol. XIV, No. 3, July, 1897.

The Iowa Orinthologist, Vol. III, No. 3, July, 1897.

The Osprey, Vol. I, Nos. 10, 11–12, Vol. II, No. 1, June, July, August, September, 1897.

The Museum, Vol. III, Nos. 8, 9, 10, 11, June to September, 1897.

The Oologist, Vol. XIV, Nos. 6, 7, 8, 9, June to September, 1897.

The Observer, Vol. VIII, Nos. 6, 7, 8, June to August, 1897.

Popular Science, Vol. XXXI, No. 4, April, 1897.

Recreation, Vol. VI, No. 6, June, 1897.

Stories from Nature, Vol. I, No. 4, September, 1897.

Microscopical Bulletin, Vol. XIV, No. 3. June, 1897.

The Nidologist, Vol. IV, No. 9, May, 1897.

The greatest and best book ever written about birds.

—ELLIOT COUES.

A Dictionary of Birds

BY

ALFRED NEWTON

Professor of Zoology and Comparative Anatomy, University of Cambridge

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BULLETIN No. 17.

Old Series, Vol. IX. New Series, Vol. IV, No. 6.

The Wilson Ornithological Chapter of the Agassiz Association.

GENERAL NOTES.

Issued Bi-Monthly as the Official Organ of the Chapter.

EDITED BY LYNDS JONES.

Subscription 50 cents a Year.

OBERLIN, OHIO.
November 30, 1897.

YOUNG CROW EDIBLE.

On the 22nd of April, in company with Russell Gray, I spent almost the entire day looking up the nests of my old friends, the Crows. One of the interesting finds of the trip was that of two young about two days old in a nest in the crotch of a leaning chestnut tree. The old birds prefering to keep their affairs secret, made no outcry; influenced doubtless by the noisy work of a near-by wood-chopper. As the nest must have been constructed as early as the last of March, it was thickly lined with cow hair. Now a strange tale had been but recently related to me from first hands, in which it is made to appear that the young are edible, and what is more, a dainty. Men and boys—as it runs—used to visit Reedy Island, at the head of Delaware Bay, where hundreds of Crows nested on the broken reeds, at the proper season for the purpose of securing the callow young, which brought good prices at the various markets and restaurants of Philadelphia, under the *non-de-plume* of "squabs." The above was strengthened by a remark made by an old lumberman and guide, formerly of Pike county, who said that the young of the Crow were much sought after in season by the lumbermen, by whom they are regarded as superior to young pigeons. Accordingly I secured this pair of young when they were about sixteen days old. The primaries, secondaries and tail feathers were just beginning to develop, the feathery tips just breaking out at the ends of the blue quills. Even when dressed, the long wings and very dark skin required some explanation before going into the frying pan. Nevertheless they finally reached the table under that all embracing term of "birds," and I literally "ate crow" for my breakfast. Subsequently one of the family remarked that the *pigeon* was rather tough, but the quality of the flesh was not impeached. In fact, it was superior to many birds I have eaten, and indeed, scarcely inferior to and tasting not unlike squab.

FRANK L. BURNS, *Berwyn, Penn.*

A MAY HORIZON.

The tenth day of May of this year (1897) was one to be remembered by local ornithologists for its wealth of transient bird life. The previous

day had been a sultry one and it had rained all night long, clearing again in the morning. The warm weather had stirred the southern loiterers mightily, and in a forenoon tramp Mr. Jones and I had our hands full checking off the newcomers.

On our walk we picked up the town birds as we passed, and gleaned across field some, but worked principally in the woodlands a mile or so out of town. One piece of woods in particular had a southern fringe of bush and swamp, and was for the most part second growth, uncleared. The trees here were of such a height as to accommodate Warbler habits to the limitations of human eyesight. It was preeminently Warbler Day! All the laggard host had come. At one time within the space of a minute I had four new arrivals, Warblers, under my glass. One does not see eighteen species of the Mniotiltidæ every day in the year, nor indeed every year in a life-time.

We count ourselves fairly fortunate here in northern Ohio as to variety of bird life, but I'll confess that to record a species every four minutes for five hours straight seemed rather a heady pace. Doubtless other W. O. C. brethren have been even more fortunate. The following list of seventy-six species, the *horizon* of that day, is given to afford some suggestion of the interest which may lie along the lines marked out for the Committee on Geographical Distribution in BULLETIN No. 14.

1. Solitary Sandpiper.
2. Spotted Sandpiper.
3. Killdeer.
4. Bob-white.
5. Mourning Dove.
6. Red-shouldered Hawk.
7. Broad-winged Hawk.
8. Sparrow Hawk.
9. Yellow-billed Cuckoo.
10. Black-billed Cuckoo.
11. Hairy Woodpecker.
12. Downy Woodpecker.
13. Yellow-bellied Sapsucker.
14. Red-headed Woodpecker.
15. Red-bellied Woodpecker.
16. Flicker.
17. Chimney Swift,
18. Kingbird.
19. Crested Flycatcher.
20. Phoebe.
21. Wood Pewee.
22. Least Flycatcher.
23. Prairie Horned Lark.
24. Blue Jay.
25. American Crow.
26. Bobolink.
27. Cowbird.
28. Red-winged Blackbird.
29. Meadow Lark.
30. Baltimore Oriole.
31. Bronzed Grackle.
32. American Goldfinch.
33. Vesper Sparrow.
34. Grasshopper Sparrow.
35. White-crowned Sparrow.
36. White-throated Sparrow.
37. Chipping Sparrow.
38. Field Sparrow.

39. Song Sparrow.
40. Towhee.
41. Rose-breasted Grosbeak.
42. Indigo Bunting.
43. Scarlet Tanager.
44. Purple Martin.
45. Barn Swallow.
46. Cedar Waxwing.
47. Loggerhead Shrike.
48 Red-eyed Vireo.
49. Warbling Vireo.
50. Blue-winged Warbler.
51. Yellow Warbler.
52. Black-throated Blue Warbler.
53. Myrtle Warbler.
54. Cerulean Warbler.
55. Chestnut-sided Warbler.
56. Bay-breasted Warbler.
57. Black-poll Warbler.
58. Blackburnian Warbler.
59. Black-throated Green Warbler.
60. Palm Warbler.
61. Oven-bird.
62. Water Thrush.
63. Mourning Warbler.
64. Maryland Yellow-throat.
65. Yellow-breasted Chat.
66. Canadian Warbler.
67. American Redstart.
68. Catbird.
69. House Wren.
70. White-breasted Nuthatch.
71. Tufted Titmouse.
72. Blue-gray Gnatcatcher.
73. Wood Thrush.
74. Olive-backed Thrush.
75. Robin.
76. Bluebird.

W. L. Dawson, *Oberlin, Ohio.*

GENERAL NOTES.

Nest of Mourning Dove, *Zenaidura macroura*, Containing Three Eggs.—An instance similar to that noted by Mr. A. S. Pearse in the last number of the Bulletin, came under my observation last spring. On May 11, I flushed a Mourning Dove from her nest in the crotch of an apple tree in an orchard. Stepping under the tree, where I could see into the nest, I was surprised to find that it contained three eggs. Preparing to capture a "freak" set I produced my note book, but just then I heard a familiar "*pip-pip*" which told of finishing incubation. Two of the eggs were pipped, a young dove's beak protruding through the opening in the side of one of the eggs. The third was perfectly fresh, and to all appearances fertile. Two weeks later I was in the orchard and observed the two young Doves huddled close together on a branch of a neighboring tree.

J. Warren Jacobs, *Waynesburg, Pa.*

Sparrow Notes.—During the months of May and June, I took 123

Sparrow's eggs from the cupola of our barn. There were about eight nests, giving an average of fifteen eggs apiece. How many more they laid during the season I do not know, as they all left the barn. From the same place I took a set of five eggs, three of which were pure creamy white, the fourth and fifth having a few hair-like lines on the large end; the fifth egg measured 1.25 in length, and was shaped like a double peanut. The Sparrows roost by the hundred in the ivy on the house, and I have often killed them by taking a light and then beating the vines with a pole. They fly around the light like moths, and may be easily killed.

JUNCOS NIGHT FLYING.—When the Juncos first arrive, I have often, when returning home about ten o'clock on dark wet nights, heard them flying from tree to tree and calling to each other. I do not know whether this is usual or not. Have others observed the same thing?

AN ODD NESTING PLACE.—Last August I found a nest of House Wrens, *T. aedon*, in an earthen bottle or jug, which was stuck in a crotch in a holly bush, about five feet up. The hole in the neck was one and one-half inches in diameter and two inches long; then the body of the jug was five inches in diameter and six inches deep, the nest being placed on the bottom. The nest was a mass of sticks, hair, grass, etc.

RUSSELL GRAY, *Philadelphia, Pa.*

Mr. Russell Gray sends the following interesting bit of old literature, which he has copied from "The Family Encyclopedia," published in New York, in 1831.

ALBATROSS.—A large and voracious water fowl, which inhabits many countries between the tropics.

BALTIMORE ORIOLE.—A bird of North America, which suspends its nest to the horizontal forks of the tulip and poplar trees, formed by the filaments of tough plants; it is of a pear shape, open at top, with a hole on the side through which the young are fed, etc. [What the bird?] Some other birds build their nests in like manner, as the Bottle-nested Sparrows, etc.

BLUE JAY.—A bird of a blue color, from six to eight inches in length, the head of which is covered with a tuft of feathers, which it erects at pleasure in the form of a crest.

BUTCHER BIRD.—A sort of shrike, remarkable for its ferosity towards the little birds, which it kills, and tearing them to pieces, sticks them on thorns.

CASSOWARY.—A large bird of prey.

HUMMINGBIRD.—A beautiful bird, the smallest of which are scarcely a

quarter of an inch in length. Its chief food is the nectar of flowers, which it extracts with a humming noise like the bee, and suspends its nest from trees, laying two white eggs, the size of a pea.

Jay.—A bird with particoloured plumage, of the crow kind. It is taught to speak.

Tit Mouse.—A small bird which feeds on the brains of other birds, which it attacks with great ferosity.

Notes from Montgomery, Ohio.—Sparrow Hawk.—During the month of December, 1892, a pair of Sparrow Hawks roosted nightly upon the shutter of a window of my room. It was an upstairs window, close under the eaves and in an angle of the house; hence a sheltered location. About dusk I would often go quietly to my room and look at the pair sitting side by side, with their heads drawn down to the shoulders and the feathers of the body puffed out until they looked quite round.

Red-shouldered Hawk.—During the winter of 1891, a chum of mine was walking through an orchard about nine P. M. to return to a neighbor a gun he had borrowed. On walking under an apple tree he heard a disturbance in the branches, and firing almost at random, brought down a badly mangled Red-shouldered Hawk, in mature plumage, which is much less often seen here than the immature. This bird was not more than ten feet from the ground.

Carolina Wren and English Sparrow.—Perhaps ten years ago I often went to an uncle's to spend a night or day, and there his hay-stacks would be perforated with holes from six to twelve inches deep, and from four to six feet from the ground, probably by English Sparrows. By going about the stacks after dark and putting my hand in the holes I frequently caught English Sparrows, and on one occasion a Carolina Wren. The Sparrows often roost in great numbers in corn cribs and grainaries; and in school-boy days several of us would take a lantern and go to a crib, and climb around, pocketing the birds as fast as one took them from the crannies, or as they were caught on the wing as they flew wildly about. Sometimes the birds would get to fighting in our pockets and when they would bite sharply through our clothes it made things even more lively than before. We would often get as many as twenty-five at one haul and fully as many more escaped; all this from one farm. During the months of August and September Mourning Doves commonly roost on the ground in weedy fields; sometimes in pairs, often in small flocks. In the same season, perhaps at others also, Flickers and

Redheads would perhaps roost in their nesting holes. A rap on the tree after sunset will start them out.

J. C. Galloway, *Montgomery, Ohio.*

Some Common Birds of New Mexico.—The following were a few of the commoner birds of south-western New Mexico this last summer:

Curve-billed Thrasher, *Harporhynchus curvirostris.*—This bird was the commonest Thrasher, although the Crissal Thrasher was seen occasionally. It is rather a quiet bird, but has a sweet voice when it wishes to use it, and it is sometimes kept as a cage-bird. It is fond of building in the cactus bushes, and in nearly every bush one of the nests or one of the House Finch may be found. One day, while lying in the hammock on the porch, I saw a young Curve-billed Thrasher fly down to the steps and then up to the railing; from there it hopped along and onto the hammock, when I reached out and caught it. After examining it for a while I let it loose, but it was in no hurry, and the next day it repeated the performance. I did not see it afterward, and I am afraid if it did not get over its curiosity that the cat had a nice meal some day.

Cassin's Kingbird, *Tyrannus vociferans.*—This was one of the most common birds, replacing the Kingbird which it resembles in habits, and it is commonly called the Kingbird. It has a shrill, rasping cry, which it utters constantly, especially just before alighting. They will attack birds of prey, and I have several times seen them drive away hawks, but they are not as brave in the defense of their nests as is the Kingbird. There was a row of large cottonwood trees in front of our house, and in the evening these birds would gather there in large numbers to roost, and for about an hour there would be constant fighting and shrieking.

Roadrunner, *Geococcyx californianus.*—It was quite a common occurrence, when out driving, to see one of these queer looking birds appear in the road a little way in front of us and dart on ahead of the horses, and after running a little way turn off into the bushes, usually going off on the up-hill side. The ones I shot all had stomachs full of insects. While collecting a set of eggs the bird allowed me to approach within a few feet of the tree before hopping off on the opposite side and running away.

House Finch, *Carpodacus mexicanus frontalis.*—This bird replaces the English Sparrow (of which there were none where I was). They live principally around the houses, building in holes in the porches and are also very fond of the cactus bushes. They lay four to six bluish eggs, marked on the larger end with black; and raise several broods a year.

The nest is made of dried grass. Their song was very sweet and was kept up the entire summer, except for a short time when they were molting. In November they began gathering in flocks preparatory to migrating.

SIDNEY S. WILSON, *St. Joseph, Mo.*

NOTES ON SOME MINNESOTA BIRDS.—I made a trip of two weeks last June, 200 miles south-west of St. Paul, to Jackson county—noted for its many water birds, where the many small lakes and sloughs afford splendid opportunities for nesting.

Among the commonest breeding birds of the county are the Black Terns, which nest by the hundreds in nearly every slough which has water deep enough. In some places the water was not over ten inches deep, while in the neighborhood of St. Paul the depth is never less than two feet. In every instance where a barb-wire fence ran through the slough, as often happens in submerged meadows, a colony of Black Terns would be found nesting along the fence.

A single colony of four pairs of Forter's Terns was found nesting in the center of a large slough a mile or more across, in the water but four feet deep. The nests were as large as the average Coot's nest and very compactly built of dead rushes, eight inches high. On June 7th, the nests all contained three eggs very well incubated. In the same slough was an immense colony of Black-crowned Night Herons in a patch of wild rice 500 feet from shore. The nests all contained from one to four fresh eggs. Near by a nest containing nine eggs of the Ruddy Duck was found on the top of a Grebe's nest which had been built on an old musk-rat run—a common situation in this locality—in the midst of a colony of fifteen or twenty nests of the Horned Grebe. The nests of the Horned Grebe contained from four to seven eggs each, five being the average number.

The only nest of the Mallard I found while there was in a clump of rushes about forty feet from the shore, and was very substantially built of grass and rushes with very little down, and containing eleven fresh eggs.

The Blue-wing Teal and Shovelers nest abundantly in the tall grass about the shores of the slough, and many deserted nests as well as those with incubated eggs were found. This region used to be a great breeding place for the Sandhill Crane some twenty years ago, but it is a novelty to see a bird now.

The Long- and Short-billed Marsh Wrens also nest in the wild rice

and cat-tails, along with the Yellow-headed Blackbird, which are met with at almost every step. But many of the wren's nests were just finished or contained only partial sets.

Along the edges of the sloughs, the Tree Swallow nests abundantly in old holes of Downy Woodpeckers or Flickers, from five to seven eggs being laid; but rarely over five, which is the average set.

WALTON I. MITCHELL, *St. Paul, Minn.*

COMMITTEE ON GEOGRAPHICAL DISTRIBUTION.

"And now comes the dull season" sighs many an ornithologist, as he lays by his field-glasses and note-book and prepares to go into winter quarters. But this thing need not be. Winter is the best time to begin the work on the local *bird census*. At this time of the year the bird population of any given area may be not only estimated but counted with reasonable accuracy. Our editor has kindly consented to give space to census reports in the February BULLETIN. Let each of our members who can possibly afford the time, put in a day or two, this coming holiday vacation, taking the census of all the birds found in their village, or on the farm, or, if in the city, in the neighboring park.

Some of our northern members will be surprised at the number of Woodpeckers, Kinglets, Chickadees and foolhardy Robins which a systematic search will discover. List every individual and send the result, together with a brief description of the area examined and such remarks as occur to you, to the chairman of the committee. Such reports as are available for immediate publication will appear in the February BULLETIN, and the rest will be retained (with permission) as a nucleus for more extended work.

W. L. DAWSON, *Oberlin, O.*

ELECTION OF OFFICERS.

An unofficial note from Mr. Frank L. Burns, Judge of Elections, annonnces the election of the following officers:

President.—R. M. Strong, Lake Forest, Ill.

Vice-President.—N. Hollister, Delavan, Wis.

Secretary.—W. L. Dawson, Oberlin, Ohio.

Treasurer.—Lynds Jones, Oberlin, Ohio.

A close vote for members of the Executive Council makes it necessary to defer announcement of that result.

CORRESPONDENCE.

To the Members of the Chapter :

If you will look up the official reports for the last year you will find that Mr. Jones had to contribute about twenty-three dollars toward the expenses of publishing the BULLETIN. In a personal letter Mr. Jones informs me the deficit this year will be about forty dollars. We all realize that it would be impossible for the Chapter to keep in existence without some means of communication. The BULLETIN furnishes the means needed. As the membership dues are not enough to meet the expense of publication, let us each contribute a little to make up the present deficit, so as not to put the burden too much on one. Are we not willing to blot from our account book this item ; "Contributed by the editor of the BULLETIN—forty dollars" ? Let us also try to secure a large enough subscription list to make the BULLETIN self-supporting.

Fraternally,

MILTON JUNCTION, WIS. G. M. BURDICK.

[NOTE.—The reason why this year's deficit will be larger than last year's is, first, because we began last year with a little over seventeen dollars on hand and, second, because this year a special BULLETIN has been issued, costing about ten dollars more than an ordinary number.—ED.]

ERRATA.

The following corrections should be made in the note on the breeding of Ruby-throated Hummingbird, p. 62. In line two read "May 29, 1896," and in line eight read "May 29, 1887."

PUBLICATIONS RECEIVED.

Some Common Birds, by P. M. Silloway. The Editor Publishing Company, Cincinnati, Ohio. In this volume, without the formality of a

preface or an introduction, we are at once transported to the meadows and there introduced to the feathered inhabitants. The series of essays —each a "sketch" of a single species of birds—are arranged in eight groups, each group preceeded by a well chosen essay descriptive of the natural division of the landscape of which it treats, and giving a hint of the bird life to be found there.

These essays are "Sketches of Some Common Birds," and hence, he who expects exhaustive or purely scientific treatment of the species, will be disappointed. The author's aim has been to present that and that only which he has learned while with the birds in the field, without any greater attention and labor than can be given by any busy person ; to make both attractive and profitable strolls into fields and woods by introducing to the reader the birds which must certainly come within the range of vision in such places ; to open the eyes and unstop the ears of those who go out of doors only into the orchard, or garden, or tree-lined street, there to see and hear the many birds about them, perhaps wholly unnoticed before.

All of the eighteen full page illustrations, are half tones of photographs from life, many of them being of the young and nest after Shufeldt.

The chief defect is the lack of an index, which is not fully compensated for by a table of contents. The 331 pages of matter should be made easily accessible by a complete index.

The volume is to be commended for its pleasing presentation of the habits and characteristics of our common birds, thus interesting many in them who have never noticed them before. In these days of awakening interest in the birds, there is great need for such books to point out methods of study while teaching the names of birds.

Birds of Maine, by Ora W. Knight, B. S. In this catalog Mr. Knight has shown us what can be done by organizing the forces at command and working toward a common end. It is by such methods that future state lists will be made approximately complete and therefore the geographical distribution of all species thruout the country more completely mapped. The list is admirably arranged both with reference to the accessibility of the information at his command and the credit due to contributors. May such lists from other states speedily follow.

A Study of the Philadelphia Vireo (*Vireo philadelphicus*) by Jonahan Dwight, Jr., M. D. From 'The Auk,' Vol. XIV, No. 3, July, 1897. In this admirable "Study," Dr. Dwright has given us a hold on the characteristics of the Philadelphia Vireo which will enable us to distinguish him in the field with certainty.

The Auk, Vol. XIV, No. 4, October, 1897.

The Osprey, Vol. II, Nos. 2 and 3, October, November, 1897.

The Museum, Vol. III, No. 12, Vol. IV, No. 1, October, November, 1897.

The Oologist, Vol. XIV, Nos. 10, 11, October, November, 1897.

Popular Science, Vol. XXXI, Nos. 9, 10, 11, September, October, November, 1897.

Birds, Vol. II, No. 4, October, 1897.

Stories from Nature, Vol. I, Nos. 5, 6, October, November, 1897.

The Microscope, Vol. V, Nos 7 to 10, July to October, 1897.

Quarterly Book Review, Vol. I, No. 3, October, 1897.

The Fern Bulletin, Vol. V, No. 4, October, 1897.

The Plant World, Vol. I, No. 2, November, 1897.

The Iowa Ornithologist, Vol. III, No. 4, October, 1897.

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